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OCTOBER 1971
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—SPACE SHUTTLE—

# STABILITY AND CONTROL EFFECTIVENESS OF THE MDAC PARAMETRIC DELTA CANARD BOOSTER AT MACH 0.38

## Volume III
## WING PARAMETRIC VARIATIONS - INCIDENCE AND DIHEDRAL

by

D. Bradley, LMSC/HREC

R. Buchholtz, LMSC/HREC

NSRDC 7X10 - FOOT TRANSONIC WIND TUNNEL

NAVY SHIP RESEARCH AND DEVELOPMENT CENTER

NOV 1971
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SADSAC SPACE SHUTTLE
AEROTHERMODYNAMIC
DATA MANAGEMENT SYSTEM

CONTRACT NAS8-4016
MARSHALL SPACE FLIGHT CENTER

SPACE DIVISION CHRYSLER CORPORATION

NASA Series Number: S-1009

DMS-DR- 1139
VOLUME III
OCTOBER, 1971

# SADSAC/SPACE SHUTTLE

# WIND TUNNEL TEST DATA REPORT

CONFIGURATION: Space Shuttle Parametric Delta Canard Booster .15 Scale

TEST PURPOSE: Investigation of Stability and Control Effectiveness at Mach Number 0.38

TEST FACILITY: NSRDC 7 x 10-Foot Transonic Wind Tunnel

TESTING AGENCY: LMSC/HREC for MSFC

TEST NO. & DATE: NSRDC 3110; March, 1971

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CONTRACT NAS 8-4016 AMENDMENT 154 DRL 184 - 58

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## ABSTRACT

A 0.015 scale model of a modified version of the MDAC Space Shuttle Booster was tested in the Naval Ship Research and Development Center 7 x 10 Foot Transonic Wind Tunnel during March 1971 (Test Number NSRDC 3110) to obtain force, static stability, and control effectiveness data. This test was conducted by Lockheed's Huntsville Research and Engineering Center for the Aero-Astrodynamic Laboratory of the George C. Marshall Space Flight Center. Data were obtained for a cruise Mach Number of 0.38, altitude of 10,000 ft ($q$ = 165 psf), and Reynolds Number per foot of approximately $2 \times 10^6$. The model was tested through an angle of attack range of $-4^\circ$ to $15^\circ$ at zero degree angle of sideslip, and at an angle of sideslip range of $-6^\circ$ to $6^\circ$ at fixed angles of attack of $0^\circ$, $6^\circ$, and $15^\circ$. Other test variables were elevon deflections, canard deflections, aileron deflections, rudder deflections, wing dihedral angle, canard incidence angle, wing incidence angle, canard position, wing position, wing and canard size, canard control flap size and dorsal fin size.

Plotted data for this test will be published under one data report number (DMS-DR-1139) with four volumes as follows:

| | | |
|---|---|---|
| I. | Canard Parametric Variations | Data plot pages 1-525 |
| II. | Wing Parametric Variations - Size and Location | Data plot pages 526-1309 |
| III. | Wing Parametric Variations - Incidence and Dihedral | Data plot pages 1310-1804 |
| IV. | Surface Effectiveness, Model Buildup and Directional Stability at High Angles of Attack | Data plot pages 1805-2207 |

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## SUMMARY

A 0.015 scale model of a modified version of the MDAC Space Shuttle Booster was tested in the Naval Ship Research and Development Center 7 x 10 Foot Transonic Wind Tunnel during March 1971 (Test Number NSRDC 3110) to obtain force, static stability, and control effectiveness data. This test was conducted by Lockheed's Huntsville Research and Engineering Center for the Aero-Astrodynamic Laboratory of the George C. Marshall Space Flight Center. Data were obtained for a cruise Mach Number of 0.38, altitude of 10,000 ft ($q$ = 165 psf), and Reynolds Number per foot of approximately $2 \times 10^6$. The model was tested through an angle of attack range of $-4^\circ$ to $15^\circ$ at zero degree angle of sideslip, and at an angle of sideslip range of $-6^\circ$ to $6^\circ$ at fixed angles of attack of $0^\circ$, $6^\circ$, and $15^\circ$. Other test variables were elevon deflections, canard deflections, aileron deflections, rudder deflections, wing dihedral angle, canard incidence angle, wing incidence angle, canard position, wing position, wing and canard size, canard control flap size, and dorsal fin size.

Plotted data for this test will be published under one data report number (DMS-DR-1139) with four volumes as follows:

| | | |
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| III. | Wing Parametric Variations - Incidence and Dihedral | Data plot pages 1310-1804 |
| IV. | Surface Effectiveness, Model Buildup and Directional Stability at High Angles of Attack | Data plot pages 1805-2207 |

## CONFIGURATIONS INVESTIGATED

The baseline model was a 0.015-scale modified version of the McDonnell Douglas model 256-14 booster configuration which was designed by NSRDC to allow the following variations in geometry: canard vertical location, size and incidence angle; wing vertical location, size, incidence angle, dihedral angle and variable wing tip fins; and dorsal fin size. A sketch of the baseline model is shown in Figure 2. In addition to the geometrical variations, the model had deflectable elevons, canard trailing edge flaps, dorsal fin rudders, and wing tip rudders. Deflection angles were obtained by replacing the control surface with a separate surface set to the desired angle. A typical model installation is shown in Figure 3 for configuration B1C2F1W1V1 with an aileron control deflection of 20 degrees.

Four pressure ports were used for measuring the base pressures, and were located as shown in Figure 4. Measurements from the pressure ports were used to calculate the base drag coefficient.

To ensure a turbulent boundary layer, artificial transition strips were applied as shown in Figure 5. Wing, body and canard grit size were calculated by the method of Braslow and Know for a tunnel Reynolds number of $2 \times 10^6$ per foot.

Model Components Tested

B1 = Baseline MDAC booster body (length = 3.453 ft)

B2 = Baseline MDAC booster body (length = 3.06 ft)

W1 = Baseline booster wing (planform area = 1.355 $ft^2$)

W2 = Alternate high aspect ratio wing (planform area = 1.148 $ft^2$)

V1 = Booster wing tip vertical fin (planform area = 0.226 $ft^2$)

V2 = Booster wing tip extension (planform area = 0.15 $ft^2$)

## CONFIGURATIONS INVESTIGATED (CONTINUED)

Model Component Tested (Con't)

D1 = Booster large dorsal fin

D2 = Booster small dorsal fin

D3 = Booster small dorsal fin

C1 = Booster large canard

C2 = Booster small canard

C3 = C2 with F1 portion removed

F1 = Canard trailing edge control surface for C1 (20% chord exposed area)

F2 = Canard trailing edge control surface for C1 (40% chord exposed area)

F3 = Canard flap, F2 for C2 with F1 portion removed

For detailed information on the above components refer to the model component sheets, pages 52 through 68.

Combinations Tested

B1

B1W1V1

B1C2F1

B1C2F2

B1C1F1W1V1

B1C1F1W1V2D1

B1C2F1W1V1

B1C2F1W2D2

B1C2F2W1V1

B1C3F3W1V1

B1C2F1W1V2

B1C2F1W1V2D1

V1C2F1W1V1D2

B1C2F1W1V1D3

B2C2F1W1V1

See Data Collation Sheets for a complete list of combinations tested.

TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

| DATA SET IDENTIFIER | CONFIGURATION | SCHD. α | SCHD. β | RUN NUMBER 0.4 | NO. of RUNS | PARAMETRIC VALUES $\delta_e$ | $\delta_c$ | $\delta_a$ | $\delta_r$ | $\Gamma_w$ | $i_c$ | $i_w$ | CND POS | WNG POS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RN2001 | B1C2F1W1V1 | A | 0 | 38 0 | 1 | 0 | 0 | 0 | 0 | 7°40' | 3 | 0 | 1 | 1 |
| 002 | | 0 | A | 39 0 | | | | | | | | | | |
| 003 | | 6 | ↓ | 40 0 | | | | | | | | | | |
| 004 | | 15 | ↓ | 41 0 | | | | | | | ↓ | | | |
| 005 | | A | 0 | 23 0 | | | | | | | 15 | | | |
| 006 | | 0 | A | 24 0 | | | | | | | | | | |
| 007 | | 6 | ↓ | 25 0 | | | | | | | | | | |
| 008 | | 15 | ↓ | 26 0 | | | | | | | ↓ | | ↓ | |
| 009 | | A | 0 | 43 0 | | | | | | | 3 | | 2 | |
| 010 | | 0 | A | 44 0 | | | | | | | | | | |
| 011 | | 6 | ↓ | 45 0 | | | | | | | | | | |
| 012 | | 15 | ↓ | 46 0 | | | | | | | ↓ | | | |
| 013 | | A | 0 | 51 0 | | | | | | | 15 | | | |
| 014 | | 0 | A | 52 0 | | | | | | | | | | |
| 015 | | 6 | ↓ | 53 0 | | | | | | | | | | |
| 016 | | 15 | ↓ | 54 0 | | | | | | | ↓ | | ↓ | ↓ |
| 017 | | A | 0 | 915 0 | | | | | | | 3 | | 1 | 2 |
| 018 | | 0 | A | 916 0 | | | | | | | | | | |
| 019 | | 6 | ↓ | 917 0 | | | | | | | | | | |
| 020 | ↓ | 15 | ↓ | 918 0 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |

| 1 | 7 | 13 | 19 | 25 | 31 | 37 | 43 | 49 | 55 | 61 | 67 | 75 76 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CN | CA | CLM | CBL | CYN | CY | CL | CD | LID | CAB | | | L3 |
| CAF | B.P.(1) | B.P.(3) | | | | | | | | M.S.C.B. | | |

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

αA = -4, 0, 2, 4, 6, 8, 10, 15, 20

βA = -6, -3, 0, 3, 6

NASA-MSFC-MAF

TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

| DATA SET IDENTIFIER | CONFIGURATION | SCHD. α | SCHD. β | RUN NUMBER 0.4 | | | | NO. of RUNS | PARAMETRIC VALUES $S_e$ | $S_c$ | $S_t$ | $S_r$ | $\Gamma_w$ | $i_c$ | $i_w$ | CND POS | WING POS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RN2021 | B1C2F1W1V1 | A | 0 | 4140 | | | | 1 | 0 | 0 | 0 | 0 | 7°40 | 15 | 0 | 1 | 2 |
| 022 | | 0 | A | 4150 | | | | | | | | | | | | | |
| 023 | | 6 | ↓ | 4160 | | | | | | | | | | | | | |
| 024 | | 15 | ↓ | 4170 | | | | | | | | | | ↓ | | ↓ | |
| 025 | | A | 0 | 4180 | | | | | | | | | | 3 | | 2 | |
| 026 | | 0 | A | 4190 | | | | | | | | | | | | | |
| 027 | | 6 | ↓ | 4200 | | | | | | | | | | | | | |
| 028 | | 15 | ↓ | 4210 | | | | | | | | | | ↓ | | | |
| 029 | | A | 0 | 4220 | | | | | | | | | | 15 | | | |
| 030 | | 0 | A | 4230 | | | | | | | | | | | | | |
| 031 | | 6 | ↓ | 4240 | | | | | | | | | | | | | |
| 032 | | 15 | ↓ | 4250 | | | | | | | | | | ↓ | ↓ | ↓ | ↓ |
| 033 | | A | 0 | 1260 | | | | | | | | | | 3 | 3 | 1 | 1 |
| 034 | | 0 | A | 1270 | | | | | | | | | | | | | |
| 035 | | 6 | ↓ | 1280 | | | | | | | | | | | | | |
| 036 | | 15 | ↓ | 1290 | | | | | | | | | | ↓ | | | |
| 037 | | A | 0 | 1300 | | | | | | | | | | 15 | | | |
| 038 | | 0 | A | 1310 | | | | | | | | | | | | | |
| 039 | | 6 | ↓ | 1320 | | | | | | | | | | | | | |
| 040 | | 15 | ↓ | 1330 | | | | | | | | | | ↓ | ↓ | ↓ | ↓ |

| 1 | 7 | 13 | 19 | 25 | 31 | 37 | 43 | 49 | 55 | 61 | 67 | 75 76 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CN | CA | CLM | CBL | CYN | CY | CL | CD | L/D | CAB | | | |
| CAE | BP(1) | BP(3) | | | | | | | | MACH | | |

COEFFICIENTS: IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

$\alpha_A$ = -4, 0, 2, 4, 6, 8, 10, 15, 20

$\beta_A$ = -6, -3, 0, 3, 6

NASA-MSFC-MAF

TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

| DATA SET IDENTIFIER | CONFIGURATION | SCHD. α | SCHD. β | RUN NUMBER | NO. of RUNS | PARAMETRIC VALUES $\delta_e$ | $\delta_c$ | $\delta_a$ | $\delta_r$ | $\Gamma_w$ | $i_c$ | $i_w$ | CND POS | WNG POS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RN2041 | B1C2F1W1V1 | A | 0 | 133 0 | 1 | 0 | 0 | 0 | 0 | 7°40' | 3 | 3 | 2 | 1 |
| 042 | | 0 | A | 134 0 | | | | | | | | | | |
| 043 | | 6 | | 135 0 | | | | | | | | | | |
| 044 | | 15 | | 136 0 | | | | | | | | | | |
| 045 | | A | 0 | 141 0 | | | | | | | 15 | | | |
| 046 | | 0 | A | 142 0 | | | | | | | | | | |
| 047 | | 6 | | 143 0 | | | | | | | | | | |
| 048 | | 15 | | 144 0 | | | | | | | | | | |
| 049 | | A | 0 | 162 0 | | | | | | | 3 | | 1 | 2 |
| 050 | | 0 | A | 163 0 | | | | | | | | | | |
| 051 | | 6 | | 164 0 | | | | | | | | | | |
| 052 | | 15 | | 165 0 | | | | | | | | | | |
| 053 | | A | 0 | 167 0 | | | | | | | 15 | | | |
| 054 | | 0 | A | 168 0 | | | | | | | | | | |
| 055 | | 6 | | 169 0 | | | | | | | | | | |
| 056 | | 15 | | 170 0 | | | | | | | | | | |
| 057 | | A | 0 | 175 0 | | | | | | | 3 | | 2 | |
| 058 | | 0 | A | 176 0 | | | | | | | | | | |
| 059 | | 6 | | 186 0 | | | | | | | | | | |
| 060 | | 15 | | 187 0 | | | | | | | | | | |

| 1 | 7 | 13 | 19 | 25 | 31 | 37 | 43 | 49 | 55 | 61 | 67 | 75 76 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CN | CA | CLM | CBL | CYN | CY | CL | CD | LID | CAB | | | |
| CAE | BP(1) | BP(3) | | | | | | | | MACH | | 13 |

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

$\alpha_A$ = -4, 0, 2, 4, 6, 9, 10, 15, 20

$\beta_A$ = -6, -3, 0, 3, 6

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TEST NSRDC-3110 DATASET COLLATION SHEET

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☑ POSTTEST

| DATA SET IDENTIFIER | CONFIGURATION | SCHD. α | SCHD. β | RUN NUMBER 0.4 | NO. of RUNS | PARAMETRIC VALUES $S_e$ | $S_c$ | $S_a$ | $S_r$ | $\Gamma_w$ | $i_c$ | $i_w$ | CND POS | WNG POS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RN2061 | B1C2F1W1V1 | A | 0 | 180 | 1 | 0 | 0 | 0 | 0 | 7°40' | 15 | 3 | 2 | 2 |
| 062 | ↓ | 0 | A | 181 | | | | | | | | | | |
| 063 | | 6 | ↓ | 182 | | | | | | | | | | |
| 064 | | 15 | | 183 | | | | | | | ↓ | ↓ | ↓ | ↓ |
| 065 | B1C1F1W1V1 | A | 0 | 33 | | | | | | | 3 | 0 | 1 | 1 |
| 066 | ↓ | 0 | A | 34 | | | | | | | ↓ | | | |
| 067 | | 6 | ↓ | 35 | | | | | | | | | ↓ | |
| 068 | | 15 | | 36 | | | | | | | 15 | | | |
| 069 | | A | 0 | 27 | | | | | | | ↓ | | | |
| 070 | | 0 | A | 28 | | | | | | | | | | |
| 071 | | 6 | ↓ | 29 | | | | | | | | | | |
| 072 | | 15 | | 31 | | | | | | | | | | |
| 073 | | A | 0 | 47 | | | | | | | 3 | | 2 | |
| 074 | | 0 | A | 48 | | | | | | | ↓ | | ↓ | |
| 075 | | 6 | ↓ | 49 | | | | | | | | | | |
| 076 | | 15 | | 50 | | | | | | | 15 | | | |
| 077 | | A | 0 | 55 | | | | | | | ↓ | | | |
| 078 | | 0 | A | 56 | | | | | | | | | | |
| 079 | | 6 | ↓ | 57 | | | | | | | | | | |
| 080 | ↓ | 15 | ↓ | 58 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |

| 1 | 7 | 13 | 19 | 25 | 31 | 37 | 43 | 49 | 55 | 61 | 67 | 75 76 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CN | CA | CLM | CBL | CYN | CY | CL | CD | L/D | CAB | MACH | | |
| CAF | BPC(2) | BPC(3) | | | | | | | | | | |

COEFFICIENTS:
α or β SCHEDULES

αA = -4, 0, 2, 4, 6, 8, 10, 15, 20

βA = -6, -3, 0, 3, 6

IDPVAR(1) | IDPVAR(2) | NDV

NASA-MSFC-MAF

TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

| DATA SET IDENTIFIER | CONFIGURATION | SCHD. α | SCHD. β | RUN NUMBER 0.4 | NO. of RUNS | PARAMETRIC VALUES $S_e$ | $S_c$ | $S_a$ | $S_r$ | $\Gamma_w$ | $i_c$ | $i_w$ | CND POS | WNG POS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RN2081 | B1C1F1W1V1 | A | 0 | 321 0 | 1 | 0 | 0 | 0 | 0 | 7°40' | 3 | 0 | 1 | 2 |
| 082 | | 0 | A | 322 0 | | | | | | | | | | |
| 083 | | 6 | ↓ | 323 0 | | | | | | | | | | |
| 084 | | 15 | ↓ | 324 0 | | | | | | | ↓ | | | |
| 085 | | A | 0 | 325 0 | | | | | | | 15 | | | |
| 086 | | 0 | A | 326 0 | | | | | | | | | | |
| 087 | | 6 | ↓ | 327 0 | | | | | | | | | | |
| 088 | | 15 | ↓ | 328 0 | | | | | | | ↓ | | ↓ | |
| 089 | | A | 0 | 476 0 | | | | | | | 3 | | 2 | |
| 090 | | 0 | A | 477 0 | | | | | | | | | | |
| 091 | | 6 | ↓ | 478 0 | | | | | | | | | | |
| 092 | | 15 | ↓ | 479 0 | | | | | | | ↓ | | | |
| 093 | | A | 0 | 480 0 | | | | | | | 15 | | | |
| 094 | | 0 | A | 481 0 | | | | | | | | | | |
| 095 | | 6 | ↓ | 370 0 | | | | | | | | ↓ | ↓ | ↓ |
| 096 | | 15 | ↓ | 371 0 | | | | | | | ↓ | | | |
| 097 | | A | 0 | 132 0 | | | | | | | 3 | 3 | 1 | 1 |
| 098 | | 0 | A | 133 0 | | | | | | | | | | |
| 099 | | 6 | | 130 0 | | | | | | | | | | |
| 100 | | 15 | ↓ | 131 0 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |

| 1 | 7 | 13 | 19 | 25 | 31 | 37 | 43 | 49 | 55 | 61 | 67 | 75 76 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CN | CA | CLM | CRL | CYN | CY | CL | CD | L/D | CAB | | | KT |
| C.A.F. | B.P.(1.) | B.P.(3.) | | | | | | | | MACH | | |

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

$\alpha A$ = -4, 0, 2, 4, 6, 8, 10, 15, 20

$\beta A$ = -6, -3, 0, 3, 6

NASA-MSFC-MAF

TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

| DATA SET IDENTIFIER | CONFIGURATION | SCHD. α | SCHD. β | RUN NUMBER 0.4 | NO. of RUNS | PARAMETRIC VALUES $S_e$ | $S_c$ | $S_a$ | $S_r$ | $\Gamma_w$ | $i_c$ | $i_w$ | CND POS | WING POS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RN2101 | BICIFIWIVI | A | 0 | 116 0 | 1 | 0 | 0 | 0 | 0 | 7°40' | 15 | -3 | 1 | 1 |
| 102 | | 0 | A | 117 0 | | | | | | | | | | |
| 103 | | 6 | ↓ | 118 0 | | | | | | | | | | |
| 104 | | 15 | ↓ | 119 0 | | | | | | | | | | |
| 105 | | A | 0 | 131 0 | | | | | | | 3 | | 2 | 1 |
| 106 | | 0 | A | 132 0 | | | | | | | | | | |
| 107 | | 6 | ↓ | 133 0 | | | | | | | | | | |
| 108 | | 15 | ↓ | 140 0 | | | | | | | | | | |
| 109 | | A | 0 | 149 0 | | | | | | | 15 | | | |
| 110 | | 0 | A | 150 0 | | | | | | | | | | |
| 111 | | 6 | ↓ | 151 0 | | | | | | | | | | |
| 112 | | 15 | ↓ | 152 0 | | | | | | | | | | |
| 113 | | A | 0 | 158 0 | | | | | | | 3 | | 1 | 2 |
| 114 | | 0 | A | 159 0 | | | | | | | | | | |
| 115 | | 6 | ↓ | 160 0 | | | | | | | | | | |
| 116 | | 15 | ↓ | 161 0 | | | | | | | | | | |
| 117 | | A | 0 | 171 0 | | | | | | | 15 | | | |
| 118 | | 0 | A | 172 0 | | | | | | | | | | |
| 119 | | 6 | ↓ | 173 0 | | | | | | | | | | |
| 120 | | 15 | ↓ | 179 0 | | | | | | | | | | |

| 1 | 7 | 13 | 19 | 25 | 31 | 37 | 43 | 49 | 55 | 61 | 67 | 75 76 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CN | CA | CLM | CBL | CYN | CV | CL | CD | L/D | CAB | | | |
| C.A.E. | B.P.(1.) | B.P.(3.) | | | | | | | | MACH | | |

IDPVAR(1) | IDPVAR(2) | NDV

COEFFICIENTS: α or β SCHEDULES

$\alpha_A$ = -4, 0, 2, 4, 6, 8, 10, 15, 20

$\beta_A$ = -6, -3, 0, 3, 6

NASA-MSFC-MAF

TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

| DATA SET IDENTIFIER | CONFIGURATION | SCHD. α | SCHD. β | RUN NUMBER 0.4 | NO. of RUNS | PARAMETRIC VALUES $S_e$ | $S_c$ | $S_a$ | $S_r$ | $\Gamma_w$ | $i_c$ | $i_w$ | CND POS | WNG POS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RN2 121 | BICIFIWIVI | A | 0 | 121 0 | 1 | 0 | 0 | 0 | 0 | 7°40' | 3 | 3 | 2 | 2 |
| 122 | | 0 | A | 122 0 | | | | | | | | | | |
| 123 | | 6 | | 123 0 | | | | | | | | | | |
| 124 | | 15 | | 124 0 | | | | | | | | | | |
| 125 | | A | 0 | 126 0 | | | | | | | 15 | | | |
| 126 | | 0 | A | 127 0 | | | | | | | | | | |
| 127 | | 6 | | 128 0 | | | | | | | | | | |
| 128 | | 15 | | 129 0 | | | | | | | | | | |
| 129 | BICIFIWIV2DI | A | 0 | 431 0 | | | | | | | 3 | 0 | 1 | 1 |
| 130 | | 0 | A | 432 0 | | | | | | | | | | |
| 131 | | 6 | | 433 0 | | | | | | | | | | |
| 132 | | 15 | | 434 0 | | | | | | | | | | |
| 133 | | A | 0 | 435 0 | | | | | | | 15 | | | |
| 134 | | 0 | A | 436 0 | | | | | | | | | | |
| 135 | | 6 | | 437 0 | | | | | | | | | | |
| 136 | | 15 | | 438 0 | | | | | | | | | | |
| 137 | | A | 0 | 72 0 | | | | | | | 3 | | 2 | |
| 138 | | 0 | A | 73 0 | | | | | | | | | | |
| 139 | | 6 | | 74 0 | | | | | | | | | | |
| 140 | | 15 | | 75 0 | | | | | | | | | | |

| 1 | 7 | 13 | 19 | 25 | 31 | 37 | 43 | 49 | 55 | 61 | 67 | 75 76 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CN | CA | CLM | CBL | CYN | CY | CL | CD | L/D | CAB | | | 13 |
| CAE | BP(1) | BP(3) | | | | | | | | MACH | | |

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

$\alpha_A$ = -4, 0, 2, 4, 6, 8, 10, 15, 20

$\beta_A$ = -6, -3, 0, 3, 6

NASA-MSFC-MAF

TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

| DATA SET IDENTIFIER | CONFIGURATION | SCHD. α | SCHD. β | RUN NUMBER 0.4 | NO. of RUNS | PARAMETRIC VALUES $S_e$ | $S_c$ | $S_a$ | $S_r$ | $\Gamma_w$ | $i_c$ | $i_w$ | CND POS | WING POS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RN2141 | B1C1F1W1V2 01 | A | 0 | CC 0 | 1 | 0 | 0 | 0 | 0 | 7°40' | 15 | 0 | 2 | 1 |
| 142 | | 0 | A | C1 C | | | | | | | | | | |
| 143 | | 6 | ↓ | 62 0 | | | | | | | | | | |
| 144 | | 15 | ↓ | 63 C | | | | | | | | | ↓ | ↓ |
| 145 | | A | 0 | [illegible] 0 | | | | | | | 3 | | 1 | 2 |
| 146 | | 0 | A | [illegible] 0 | | | | | | | | | | |
| 147 | | 6 | ↓ | [illegible] 0 | | | | | | | | | | |
| 148 | | 15 | ↓ | [illegible] C | | | | | | | 15 | | | |
| 149 | | A | 0 | [illegible] 0 | | | | | | | | | | |
| 150 | | 0 | A | [illegible] C | | | | | | | | | | |
| 151 | | 6 | ↓ | [illegible] 0 | | | | | | | | | | |
| 152 | | 15 | ↓ | [illegible] C | | | | | | | | | ↓ | |
| 153 | | A | 0 | [illegible] 0 | | | | | | | 3 | | 2 | |
| 154 | | 0 | A | [illegible] C | | | | | | | | | | |
| 155 | | 6 | ↓ | [illegible] C | | | | | | | | | | |
| 156 | | 15 | ↓ | [illegible] 0 | | | | | | | | | | |
| 157 | | A | 0 | [illegible] 0 | | | | | | | 15 | | | |
| 158 | | 0 | A | [illegible] 0 | | | | | | | | | | |
| 159 | | 6 | ↓ | [illegible] 0 | | | | | | | | | | |
| 160 | | 15 | ↓ | [illegible] C | | | | | | | | | ↓ | ↓ |

| 1 | 7 | 13 | 19 | 25 | 31 | 37 | 43 | 49 | 55 | 61 | 67 | 75 76 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CN | CA | CLM | CHL | CYN | CY | CL | CD | L/D | CAB | | | |
| CAF | BPS(1) | BA(3) | | | | | | | | MACH | | KT |

COEFFICIENTS:
α or β SCHEDULES

$\alpha_A$ = -4, 0, 2, 4, 6, 8, 10, 15, 20

$\beta_A$ = -6, -3, 0, 3, 6

IDPVAR(1) | IDPVAR(2) | NDV

NASA-MSFC-MAF

TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

| DATA SET IDENTIFIER | CONFIGURATION | SCHD. α | SCHD. β | RUN NUMBER 0.4 | NO. of RUNS | PARAMETRIC VALUES $S_e$ | $S_c$ | $S_a$ | $S_r$ | $\Gamma_w$ | $i_c$ | $i_w$ | CND POS | WING POS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RN2 161 | B1C1F1W1V2D1 | A | 0 | 153 0 | 1 | 0 | 0 | 0 | 0 | 7°40' | 3 | 3 | 1 | 1 |
| 162 | | 0 | A | 154 0 | | | | | | | | | | |
| 163 | | 6 | | 155 0 | | | | | | | | | | |
| 164 | | 15 | | 156 0 | | | | | | | | | | |
| 165 | | A | 0 | 112 0 | | | | | | | 15 | | | |
| 166 | | 0 | A | 113 0 | | | | | | | | | | |
| 167 | | 6 | | 114 0 | | | | | | | | | | |
| 168 | | 15 | | 115 0 | | | | | | | | | | |
| 169 | | A | 0 | 77 0 | | | | | | | 3 | | 2 | |
| 170 | | 0 | A | 78 0 | | | | | | | | | | |
| 171 | | 6 | | 79 0 | | | | | | | | | | |
| 172 | | 15 | | 80 0 | | | | | | | | | | |
| 123 | | A | 0 | 85 0 | | | | | | | 15 | | | |
| 174 | | 0 | A | 86 0 | | | | | | | | | | |
| 175 | | 6 | | 87 0 | | | | | | | | | | |
| 176 | | 15 | | 88 0 | | | | | | | | | | |
| 177 | | A | 0 | 123 0 | | | | | | | 3 | | 1 | 2 |
| 178 | | 0 | A | 124 0 | | | | | | | | | | |
| 179 | | 6 | | 129 0 | | | | | | | | | | |
| 180 | | 15 | | 126 0 | | | | | | | | | | |

| 1 | 7 | 13 | 19 | 25 | 31 | 37 | 43 | 49 | 55 | 61 | 67 | 75 76 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CN | CA | CLM | CBL | CYN | CY | CL | CD | LID | CAB | | | KJ |
| CAF | BP(1) | BP(3) | | | | | | | | MACH | | |

COEFFICIENTS: IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

$\alpha_A$ : -4, 0, 2, 4, 6, 8, 10, 15, 20

$\beta_A$ : -6, -3, 0, 3, 6

NASA-MSFC-MAF

TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

| DATA SET IDENTIFIER | CONFIGURATION | SCHD. α | SCHD. β | RUN NUMBER 0.4 | NO. of RUNS | PARAMETRIC VALUES Se | Sc | Sa | Sr | Γw | ic | iw | CND POS | WNG POS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RN2 181 | B1G1F1W1V2 D1 | A | 0 | 503 0 | 1 | 0 | 0 | 0 | 0 | 7°40' | 15 | 3 | 1 | 2 |
| 182 | | 0 | A | 504 0 | | | | | | | | | | |
| 183 | | 6 | ↓ | 507 0 | | | | | | | | | | |
| 184 | | 15 | ↓ | 508 0 | | | | | | | ↓ | | ↓ | |
| 185 | | A | 0 | 113 0 | | | | | | | 3 | | 2 | |
| 186 | | 0 | A | 172 0 | | | | | | | ↓ | | ↓ | |
| 187 | | 6 | ↓ | 175 0 | | | | | | | | | | |
| 188 | | 15 | ↓ | 176 0 | | | | | | | ↓ | | | |
| 189 | | A | 0 | 500 0 | | | | | | | 15 | | | |
| 190 | | 0 | A | 501 0 | | | | | | | ↓ | | | |
| 191 | ↓ | 6 | ↓ | 502 0 | | | | | | | | | | |
| 192 | | 15 | ↓ | 503 0 | | | | | | | ↓ | ↓ | ↓ | ↓ |
| 193 | B1C2F1W1V2 D1 | A | 0 | 417 0 | | | | | | | 3 | 0 | 1 | 1 |
| 194 | | 0 | A | 418 0 | | | | | | | ↓ | ↓ | ↓ | ↓ |
| 195 | | 6 | ↓ | 419 0 | | | | | | | | | | |
| 196 | | 15 | ↓ | 420 0 | | | | | | | ↓ | | | |
| 197 | | A | 0 | 431 0 | | | | | | | 15 | | | |
| 198 | | 0 | A | 432 0 | | | | | | | ↓ | | | |
| 199 | ↓ | 6 | ↓ | 433 0 | | ↓ | ↓ | ↓ | ↓ | ↓ | | | | |
| 200 | | 15 | ↓ | 434 0 | | | | | | | ↓ | ↓ | ↓ | ↓ |

| 1 | 7 | 13 | 19 | 25 | 31 | 37 | 43 | 49 | 55 | 61 | 67 | 75 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CN | CA | CLM | CBL | CYN | CY | CL | CD | LID | CAB | | | |
| CAF | BP(1) | BP(3) | | | | | | | | MACH | | |

IDPVAR(1) | IDPVAR(2) | NDV

COEFFICIENTS:
α or β SCHEDULES

αA = -4, 0, 2, 4, 6, 8, 10, 15, 20

βA = -6, -3, 0, 3, 6

NASA-MSFC-MAF

TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

| DATA SET IDENTIFIER | CONFIGURATION | SCHD. α | SCHD. β | RUN NUMBER 0.4 | NO. of RUNS | PARAMETRIC VALUES $\delta_e$ | $\delta_c$ | $\delta_a$ | $\delta_r$ | $\Gamma_w$ | $i_c$ | $i_w$ | CND POS | WING POS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RN2201 | B1C2FIWV2D1 | A | 0 | 03 0 | 1 | 0 | 0 | 0 | 0 | 7°40' | 3 | 0 | 2 | 1 |
| 202 | | 0 | A | 07 0 | | | | | | | | | | |
| 203 | | 6 | ↓ | 10 0 | | | | | | | | | | |
| 204 | | 15 | ↓ | 21 0 | | | | | | | ↓ | | | |
| 205 | | A | 0 | 04 0 | | | | | | | 15 | | | |
| 206 | | 0 | A | 05 0 | | | | | | | ↓ | | | |
| 207 | | 6 | ↓ | 06 0 | | | | | | | | | | |
| 208 | | 15 | ↓ | 07 0 | | | | | | | ↓ | | ↓ | ↓ |
| 209 | | A | 0 | 311 0 | | | | | | | 3 | | 1 | 2 |
| 210 | | 0 | A | 312 0 | | | | | | | ↓ | | ↓ | ↓ |
| 211 | | 6 | ↓ | 313 0 | | | | | | | | | | |
| 212 | | 15 | ↓ | 314 0 | | | | | | | ↓ | | | |
| 213 | | A | 0 | 443 0 | | | | | | | 15 | | | |
| 214 | | 0 | A | 444 0 | | | | | | | ↓ | | | |
| 215 | | 6 | ↓ | 445 0 | | | | | | | | | | |
| 216 | | 15 | ↓ | 446 0 | | | | | | | ↓ | | ↓ | |
| 217 | | A | 0 | 456 0 | | | | | | | 3 | | 2 | |
| 218 | | 0 | A | 457 0 | | | | | | | ↓ | | ↓ | |
| 219 | | 6 | ↓ | 458 0 | | | | | | | | | | |
| 230 | | 15 | ↓ | 459 0 | | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |

| 1 | 7 | 13 | 19 | 25 | 31 | 37 | 43 | 49 | 55 | 61 | 67 | 75 76 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CN | CA | CLM | CBL | CYN | CY | CL | CI | LID | CAB | | | |
| CAF | BP(1) | BP(3) | | | | | | | | MACH | | |

COEFFICIENTS: $\alpha_A$ = -4, 0, 2, 4, 6, 8, 10, 15, 20 → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

$\beta_A$ = -6, -3, 0, 3, 6

NASA-MSFC-MAF

TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

| DATA SET IDENTIFIER | CONFIGURATION | SCHD. α | SCHD. β | RUN NUMBER 0.4 | NO. of RUNS | PARAMETRIC VALUES Se | Sc | Sa | Sr | Γw | ic | iw | CND POS | WING POS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RN2221 | B1C2F1W1V2D1 | A | 0 | 80 0 | 1 | 0 | 0 | 0 | 0 | 7°40' | 15 | 0 | 2 | 2 |
| 222 | | 0 | A | 104 0 | | | | | | | | | | |
| 223 | | 6 | | 103 0 | | | | | | | | | | |
| 224 | | 15 | | 102 0 | | | | | | | | | | |
| 225 | | A | 0 | 94 0 | | | | | | | 3 | 3 | 1 | 1 |
| 226 | | 0 | A | 95 0 | | | | | | | | | | |
| 227 | | 6 | | 96 0 | | | | | | | | | | |
| 228 | | 15 | | 97 0 | | | | | | | | | | |
| 229 | | A | 0 | 108 0 | | | | | | | 15 | | | |
| 230 | | 0 | A | 109 0 | | | | | | | | | | |
| 231 | | 6 | | 110 0 | | | | | | | | | | |
| 232 | | 15 | | 111 0 | | | | | | | | | 1 | |
| 233 | | A | 0 | 81 0 | | | | | | | 3 | | 2 | |
| 234 | | 0 | A | 82 0 | | | | | | | | | | |
| 235 | | 6 | | 83 0 | | | | | | | | | | |
| 236 | | 15 | | 84 0 | | | | | | | | | | |
| 237 | | A | 0 | 87 0 | | | | | | | 15 | | | |
| 238 | | 0 | A | 90 0 | | | | | | | | | | |
| 239 | | 6 | | 91 0 | | | | | | | | | | |
| 240 | | 15 | | 92 0 | | | | | | | | | | |

| 1 | 7 | 13 | 19 | 25 | 31 | 37 | 43 | 49 | 55 | 61 | 67 | 75 76 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CN | CA | CLM | CBL | CYN | CY | CL | CD | L/D | CAB | | | |
| CAF | BP(1) | BP(3) | | | | | | | | MACH | | |

COEFFICIENTS: IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

αA = -4, 0, 2, 4, 6, 8, 10, 15, 20

βA = -6, -3, 0, 3, 6

NASA-MSFC-MAF

TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

| DATA SET IDENTIFIER | CONFIGURATION | SCHD. α | SCHD. β | RUN NUMBER 0.4 | NO. of RUNS | PARAMETRIC VALUES $S_e$ | $S_c$ | $S_a$ | $S_r$ | $\Gamma_w$ | $i_c$ | $i_w$ | CND POS | WNG POS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RN2241 | B1C2F1W1V2D1 | A | 0 | 327 0 | 1 | 0 | 0 | 0 | 0 | 7°40' | 3 | 3 | 1 | 2 |
| 242 | | 0 | A | 328 0 | | | | | | | | | | |
| 243 | | 6 | ↓ | 329 0 | | | | | | | | | | |
| 244 | | 15 | ↓ | 330 0 | | | | | | | ↓ | | | |
| 245 | | A | 0 | 501 0 | | | | | | | 15 | | | |
| 246 | | 0 | A | 510 0 | | | | | | | | | | |
| 247 | | 6 | ↓ | 511 0 | | | | | | | | | | |
| 248 | | 15 | ↓ | 514 0 | | | | | | | ↓ | | ↓ | |
| 249 | | A | 0 | 492 0 | | | | | | | 3 | | 2 | |
| 250 | | 0 | A | 493 0 | | | | | | | | | | |
| 251 | | 6 | ↓ | 494 0 | | | | | | | | | | |
| 252 | | 15 | ↓ | 495 0 | | | | | | | ↓ | | | |
| 253 | | A | 0 | 496 0 | | | | | | | 15 | | | |
| 254 | | 0 | A | 497 0 | | | | | | | | | | |
| 255 | ↓ | 6 | ↓ | 498 0 | | | | | | | | | | |
| 256 | | 15 | ↓ | 471 0 | | | | | | | ↓ | ↓ | ↓ | ↓ |
| 257 | B1C2F1W2D1 | A | 0 | 553 0 | | | | | | | 3 | 0 | 1 | 1 |
| 258 | | 0 | A | 554 0 | | | | | | | | | | |
| 259 | | 6 | ↓ | 555 0 | | | | | | | | | | |
| 260 | | 15 | ↓ | 556 0 | | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |

| 1 | 7 | 13 | 19 | 25 | 31 | 37 | 43 | 49 | 55 | 61 | 67 | 75 76 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CN | CA | CLM | CBL | CYN | CY | CL | CD | LID | CAB | | | A3 |
| CAE | BP(1) | BP(3) | | | | | | | | MACH | | |

COEFFICIENTS: $\alpha A$ = -4, 0, 2, 4, 6, 8, 10, 15, 20 | IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES: $\beta A$ = -6, -3, 0, 3, 6

NASA-MSFC-MAF

TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

| DATA SET IDENTIFIER | CONFIGURATION | SCHD. α | SCHD. β | RUN NUMBER 0.4 | NO. of RUNS | PARAMETRIC VALUES $\delta_e$ | $\delta_c$ | $\delta_a$ | $\delta_r$ | $\Gamma_w$ | $i_c$ | $i_w$ | CNP POS | WNG POS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RN2261 | B1C2F1W2D1 | A | 0 | 530 | 1 | 0 | 0 | 0 | 0 | 7°40' | 15 | 0 | 1 | 1 |
| 262 | | 0 | A | 531 | | | | | | | | | | |
| 263 | | 6 | | 532 | | | | | | | | | | |
| 264 | | 15 | | 533 | | | | | | | | | | |
| 265 | | A | 0 | 535 | | | | | | | 3 | | 2 | |
| 266 | | 0 | A | 536 | | | | | | | | | | |
| 267 | | 6 | | 537 | | | | | | | | | | |
| 268 | | 15 | | 538 | | | | | | | | | | |
| 269 | | A | 0 | 539 | | | | | | | 15 | | | |
| 270 | | 0 | A | 550 | | | | | | | | | | |
| 271 | | 6 | | 531 | | | | | | | | | | |
| 272 | | 15 | | 534 | | | | | | | | | | |
| 273 | | A | 0 | 514 | | | | | | | | | 1 | 2 |
| 279 | | 0 | A | 515 | | | | | | | | | | |
| 275 | | 6 | | 516 | | | | | | | | | | |
| 276 | | 15 | | 517 | | | | | | | | | | |
| 277 | | A | 0 | 518 | | | | | | | 3 | | 2 | |
| 278 | | 0 | A | 525 | | | | | | | | | | |
| 279 | | 6 | | 526 | | | | | | | | | | |
| 280 | | 15 | | 547 | | | | | | | | | | |

| 1 | 7 | 13 | 19 | 25 | 31 | 37 | 43 | 49 | 55 | 61 | 67 | 75 76 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CN | CA | CLM | CBL | CYN | CV | CL | CD | LID | CAB | | | |
| CAT | BP(1,1) | BP(3) | | | | | | | | MACH | | |

COEFFICIENTS: $\alpha_A$ : -4, 0, 2, 4, 6, 8, 10, 15, 20 → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

$\beta_A$ = -6, -3, 0, 3, 6

NASA-MSFC-MAF

TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

| DATA SET IDENTIFIER | CONFIGURATION | SCHD. α | SCHD. β | RUN NUMBER 0.4 | NO. of RUNS | PARAMETRIC VALUES Se | Sc | Sa | Sr | Γw | ic | iw | CND POS | WING POS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RN2281 | B1C2F1W2D1 | A | 0 | 511 0 | 1 | 0 | 0 | 0 | 0 | 7°48 | 15 | 0 | 2 | 2 |
| 282 | | 0 | A | 512 0 | | | | | | | | | | |
| 283 | | 6 | | 513 0 | | | | | | | | | | |
| 284 | | 15 | | 514 0 | | | | | | | | | | |
| 285 | | A | 0 | 535 0 | | | | | | | 3 | 3 | 1 | 1 |
| 286 | | 0 | A | 536 0 | | | | | | | | | | |
| 287 | | 6 | | 537 0 | | | | | | | | | | |
| 288 | | 15 | | 538 0 | | | | | | | | | | |
| 289 | | A | 0 | 578 0 | | | | | | | 15 | | | |
| 290 | | 0 | A | 579 0 | | | | | | | | | | |
| 291 | | 6 | | 580 0 | | | | | | | | | 1 | |
| 292 | | 15 | | 581 0 | | | | | | | | | | |
| 293 | | A | 0 | 582 0 | | | | | | | 3 | | 2 | |
| 294 | | 0 | A | 583 0 | | | | | | | | | | |
| 295 | | 6 | | 584 0 | | | | | | | | | | |
| 296 | | 15 | | 585 0 | | | | | | | | | | |
| 297 | | A | 0 | 583 0 | | | | | | | 15 | | | |
| 298 | | 0 | A | 584 0 | | | | | | | | | | |
| 299 | | 6 | | 585 0 | | | | | | | | | | |
| 300 | | 15 | | 586 0 | | | | | | | | | | |

| 1 | 7 | 13 | 19 | 25 | 31 | 37 | 43 | 49 | 55 | 61 | 67 | 75 76 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CN | CA | CLM | CBL | CYN | CY | CL | CD | L/D | CAB | | | KI |
| CAE | BP(1) | BP(3) | | | | | | | | MACH | | |

COEFFICIENTS: IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

αA = -4, 0, 2, 4, 6, 8, 10, 15, 20

βA = -6, -3, 0, 3, 6

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TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

| DATA SET IDENTIFIER | CONFIGURATION | SCHD. α | SCHD. β | RUN NUMBER 0.4 | NO. of RUNS | PARAMETRIC VALUES Se | Sc | Sa | Sr | Γw | Lc | Lw | CNO POS | WNG POS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RN2301 | B1C2F1W2D1 | A | 0 | 931 0 | 1 | 0 | 0 | 0 | 0 | 7°40' | 3 | 3 | 1 | 2 |
| 302 | | 0 | A | 932 0 | | | | | | | | | | |
| 303 | | 6 | ↓ | 933 0 | | | | | | | | | | |
| 304 | | 15 | ↓ | 934 0 | | | | | | | ↓ | | | |
| 305 | | A | 0 | 935 0 | | | | | | | 15 | | | |
| 306 | | 0 | A | 936 0 | | | | | | | ↓ | | | |
| 307 | | 6 | ↓ | 937 0 | | | | | | | | | | |
| 308 | | 15 | ↓ | 938 0 | | | | | | | ↓ | | ↓ | |
| 309 | | A | 0 | 939 0 | | | | | | | 3 | | 2 | |
| 310 | | 0 | A | 940 0 | | | | | | | ↓ | | | |
| 311 | | 6 | ↓ | 941 0 | | | | | | | | | | |
| 312 | | 15 | ↓ | 942 0 | | | | | | | 15 | | | |
| 313 | | A | 0 | 943 0 | | | | | | | ↓ | | | |
| 314 | | 0 | A | 944 0 | | | | | | | | | | |
| 315 | | 6 | ↓ | 945 0 | | | | | | | | | | |
| 316 | ↓ | 15 | ↓ | 946 0 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |
| 317 | B1 | A | 0 | 401 0 | | - | - | - | - | - | - | - | - | - |
| 318 | ↓ | 0 | A | 402 0 | | - | - | - | - | - | - | - | - | - |
| 319 | | 6 | ↓ | 403 0 | | - | - | - | - | - | - | - | - | - |
| 320 | ↓ | 15 | ↓ | 404 0 | ↓ | - | - | - | - | - | - | - | - | - |

| 1 | 7 | 13 | 19 | 25 | 31 | 37 | 43 | 49 | 55 | 61 | 67 | 75 76 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CN | CA | CLM | CRL | CYN | CY | CL | CD | L/D | CAB | MACH | | IS |
| CAF | BP(1) | BP(3) | | | | | | | | | | |

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

αA = -4, 0, 2, 4, 6, 8, 10, 15, 20

βA = -6, -3, 0, 3, 6

NASA-MSFC-MAF

TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

| DATA SET IDENTIFIER | CONFIGURATION | SCHD. α | SCHD. β | RUN NUMBER 0.4 | NO. of RUNS | PARAMETRIC VALUES $\delta_e$ | $\delta_c$ | $\delta_a$ | $\delta_r$ | $\Gamma_w$ | $i_c$ | $i_w$ | CNO POS | WNG POS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RN2321 | B1C2F2W1V1 | A | 0 | 601 | 1 | 0 | 10 | 0 | 0 | 7% | 3 | 0 | 1 | 1 |
| 322 | | 0 | A | 602 | | | | | | | | | | |
| 323 | | 6 | ↓ | 603 | | | | | | | | | | |
| 324 | | 15 | ↓ | 604 | | | ↓ | | | | | | | |
| 325 | | A | 0 | 605 | | | 20 | | | | | | | |
| 326 | | 0 | A | 606 | | | | | | | | | | |
| 327 | ↓ | 6 | ↓ | 607 | | ↓ | ↓ | | | | | | | |
| 328 | | 15 | ↓ | 608 | | | | | | | | | | |
| 329 | B1C2F1W1V1 | A | 0 | 609 | | -20 | 0 | | | | | | | |
| 330 | | 0 | A | 610 | | | | | | | | | | |
| 331 | | 6 | ↓ | 611 | | | | | | | | | | |
| 332 | | 15 | ↓ | 612 | | | ↓ | | | | | | | |
| 333 | B1C2F2W1V1 | A | 0 | 613 | | | 10 | | | | | | | |
| 334 | | 0 | A | 614 | | | | | | | | | | |
| 335 | | 6 | ↓ | 615 | | | | | | | | | | |
| 336 | | 15 | ↓ | 616 | | | ↓ | | | | | | | |
| 337 | | A | 0 | 617 | | | 20 | | | | | | | |
| 338 | | 0 | A | 618 | | | | | | | | | | |
| 339 | | 6 | ↓ | 619 | | | | | | | | | | |
| 340 | ↓ | 15 | ↓ | 620 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |

| 1 | 7 | 13 | 19 | 25 | 31 | 37 | 43 | 49 | 55 | 61 | 67 | 75 76 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CN | CA | CLM | CDL | CYN | CY | CL | CD | LID | CAB | | | 13 |
| CAE | BP(1) | BP(3) | | | | | | | | MACH | | |

IDPVAR(1) | IDPVAR(2) | NDV

COEFFICIENTS: $\alpha A = -4, 0, 2, 4, 6, 8, 10, 15, 20$

α or β SCHEDULES

$\beta A = -6, -3, 0, 3, 6$

NASA-MSFC-MAF

TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

| DATA SET IDENTIFIER | CONFIGURATION | SCHD. α | SCHD. β | RUN NUMBER 0.4 | NO. of RUNS | PARAMETRIC VALUES $\delta_e$ | $\delta_c$ | $\delta_a$ | $\delta_r$ | $\Gamma_w$ | $i_c$ | $\lambda_N$ | CNO POS | WNG POS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RN2341 | B1C2F1W1V1 | A | 0 | 611 | 1 | -10 | 0 | 0 | 0 | 7% | 3 | 0 | 1 | 1 |
| 342 | | 0 | A | 612 | | | | | | | | | | |
| 343 | | 6 | | 613 | | | | | | | | | | |
| 344 | | 15 | | 614 | | | | | | | | | | |
| 345 | B1C2F2W1V1 | A | 0 | 615 | | | 10 | | | | | | | |
| 346 | | 0 | A | 617 | | | | | | | | | | |
| 347 | | 6 | | 618 | | | | | | | | | | |
| 348 | | 15 | | 619 | | | | | | | | | | |
| 349 | | A | 0 | 688 | | | 20 | | | | | | | |
| 350 | | 0 | A | 689 | | | | | | | | | | |
| 351 | | 6 | | 690 | | | | | | | | | | |
| 352 | | 15 | | 691 | | | | | | | | | | |
| 353 | B1C2F1W1V1 | A | 0 | 615 | | 10 | 0 | | | | | | | |
| 354 | | 0 | A | 616 | | | | | | | | | | |
| 355 | | 6 | | 617 | | | | | | | | | | |
| 356 | | 15 | | 618 | | | | | | | | | | |
| 357 | B1C2F2W1V1 | A | 0 | 680 | | | 10 | | | | | | | |
| 358 | | 0 | A | 681 | | | | | | | | | | |
| 359 | | 6 | | 682 | | | | | | | | | | |
| 360 | | 15 | | 683 | | | | | | | | | | |

| 1 | 7 | 13 | 19 | 25 | 31 | 37 | 43 | 49 | 55 | 61 | 67 | 75 76 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CN | CA | CLM | CRL | CYN | CY | CL | CD | LID | CAB | | | L3 |
| CAE | BP(1) | BP(3) | | | | | | | | MACH | | |

COEFFICIENTS: $\alpha_A$ = -4, 0, 2, 4, 6, 8, 10, 15, 20 → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

$\beta_A$ = -6, -3, 0, 3, 6

NASA-MSFC-MAF

TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

| DATA SET IDENTIFIER | CONFIGURATION | SCHD. α | SCHD. β | RUN NUMBER 0.4 | NO. of RUNS | PARAMETRIC VALUES $\delta_e$ | $\delta_c$ | $\delta_a$ | $\delta_r$ | $\Gamma_w$ | $i_c$ | $\Lambda_w$ | CND POS | WNG POS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RN2361 | B1C2F2W1V1 | A | 0 | 0 | 1 | 10 | 20 | 0 | 0 | 7°40' | 3 | 0 | 1 | 1 |
| 362 | ↓ | 0 | A | 0 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |
| 363 | | 6 | ↓ | 0 | | | | | | | | | | |
| 364 | ↓ | 15 | ↓ | 0 | | ↓ | ↓ | | | | | | | |
| 365 | B1C2F1W1V1 | A | 0 | 0 | | 20 | 0 | | | | | | | |
| 366 | ↓ | 0 | A | 0 | | ↓ | ↓ | | | | | | | |
| 367 | | 6 | ↓ | 0 | | | | | | | | | | |
| 368 | ↓ | 15 | ↓ | 0 | | | ↓ | | | | | | | |
| 369 | B1C2F2W1V1 | A | 0 | 0 | | | 10 | | | | | | | |
| 370 | ↓ | 0 | A | 0 | | | ↓ | | | | | | | |
| 371 | | 6 | ↓ | 0 | | | | | | | | | | |
| 372 | ↓ | 15 | ↓ | 0 | | | ↓ | | | | | | | |
| 373 | | A | 0 | 0 | | | 20 | | | | | | | |
| 374 | | 0 | A | 0 | | | ↓ | | | | | | | |
| 375 | | 6 | ↓ | 0 | | | | | | | | | | |
| 376 | ↓ | 15 | ↓ | 0 | | ↓ | ↓ | | | | | | | |
| 377 | B1C2F1W1V1 | A | 0 | 0 | | 30 | 0 | | | | | | | |
| 378 | ↓ | 0 | A | 0 | | ↓ | ↓ | | | | | | | |
| 379 | | 6 | ↓ | 0 | | | | | | | | | | |
| 380 | ↓ | 15 | ↓ | 0 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |

| 1 | 7 | 13 | 19 | 25 | 31 | 37 | 43 | 49 | 55 | 61 | 67 | 75 76 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CN | CA | CLM | CDL | CYN | CY | CL | CD | L/D | CAB | MACH | | 73 |
| C.A.E. | B.P.(1). | B.P.(3). | | | | | | | | | | |

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

$\alpha_A$ = -4, 0, 2, 4, 6, 8, 10, 15, 20

$\beta_A$ = -6, -3, 0, 3, 6

NASA-MSFC-MAF

TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

| DATA SET IDENTIFIER | CONFIGURATION | SCHD. α | SCHD. β | RUN NUMBER 0.4 | NO. of RUNS | PARAMETRIC VALUES $\delta_e$ | $\delta_c$ | $\delta_a$ | $\delta_r$ | $\Gamma_W$ | $i_c$ | $i_W$ | CNO POS | WNG POS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RN2381 | B1G2F2W1V1 | A | 0 | 0 | 1 | 30 | 10 | 0 | 0 | 7°40' | 3 | 0 | 1 | 1 |
| 382 | | 0 | A | 0 | | | | | | | | | | |
| 383 | | 6 | ↓ | 0 | | | | | | | | | | |
| 384 | | 15 | ↓ | 0 | | | ↓ | | | | | | | |
| 385 | | A | 0 | 0 | | | 20 | | | | | | | |
| 386 | | 0 | A | 0 | | | | | | | | | | |
| 387 | | 6 | ↓ | 0 | | | | | | | | | | |
| 388 | | 15 | ↓ | 0 | | ↓ | ↓ | ↓ | | | | | | |
| 389 | | A | 0 | 0 | | 0 | 0 | 10 | | | | | | |
| 390 | | 0 | A | 0 | | | | | | | | | | |
| 391 | | 6 | ↓ | 0 | | | | ↓ | | | | | | |
| 392 | | 15 | ↓ | 0 | | | | | | | | | | |
| 393 | | A | 0 | 0 | | | | 20 | | | | | | |
| 394 | | 0 | A | 0 | | | | | | | | | | |
| 395 | | 6 | ↓ | 0 | | | | ↓ | | | | | | |
| 396 | | 15 | ↓ | 0 | | ↓ | ↓ | ↓ | | | | | | |
| 397 | | A | 0 | 0 | | -10 | 0 | 10 | | | | | | |
| 398 | | 0 | A | 0 | | | | | | | | | | |
| 399 | | 6 | ↓ | 0 | | | | | | | | | | |
| 400 | ↓ | 15 | ↓ | 0 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |

| 1 | 7 | 13 | 19 | 25 | 31 | 37 | 43 | 49 | 55 | 61 | 67 | 75 76 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CN | CA | CLM | CBL | CYN | CY | CL | CD | L/D | CAB | MACH | | IS |
| CAF | BPCW | BPC3 | | | | | | | | | | |

COEFFICIENTS: $\alpha_A$ = -4, 0, 2, 4, 6, 8, 10, 15, 20 → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

$\beta_A$ = -6, -3, 0, 3, 6

NASA-MSFC-MAF

TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

| DATA SET IDENTIFIER | CONFIGURATION | SCHD. α | SCHD. β | RUN NUMBER 0.4 | NO. of RUNS | PARAMETRIC VALUES Se | Sc | Sa | Sr | $\Gamma_W$ | $i_c$ | $i_N$ | CNO POS | WING POS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RN2401 | B1C2F2W1V1 | A | 0 | 731 0 | 1 | -10 | 0 | 20 | 0 | 7°40' | 3 | 0 | 1 | 1 |
| 402 | | 0 | A | 734 0 | | | | | | | | | | |
| 403 | | 6 | ↓ | 735 0 | | | | | | | | | | |
| 404 | | 15 | ↓ | 736 0 | | ↓ | | ↓ | | | | | | |
| 405 | | A | 0 | 721 0 | | 10 | | 10 | | | | | | |
| 406 | | 0 | A | 722 0 | | | | | | | | | | |
| 407 | | 6 | ↓ | 723 0 | | | | | | | | | | |
| 408 | | 15 | ↓ | 724 0 | | | | ↓ | | | | | | |
| 409 | | A | 0 | 725 0 | | | | 20 | | | | | | |
| 410 | | 0 | A | 726 0 | | | | | | | | | | |
| 411 | | 6 | ↓ | 727 0 | | | | | | | | | | |
| 412 | | 15 | ↓ | 728 0 | | ↓ | ↓ | ↓ | | | | | | |
| 413 | | A | 0 | 741 0 | | 0 | 20 | 10 | | | | | | |
| 414 | | 0 | A | 742 0 | | | | | | | | | | |
| 415 | | 6 | ↓ | 743 0 | | | | | | | | | | |
| 416 | | 15 | ↓ | 744 0 | | ↓ | ↓ | ↓ | | | | | | |
| 417 | | A | 0 | 753 0 | | 0 | 20 | 20 | | | | | | |
| 418 | | 0 | A | 754 0 | | | | | | | | | | |
| 419 | | 6 | ↓ | 755 0 | | | | | | | | | | |
| 420 | | 15 | ↓ | 756 0 | | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |

| 1 | 7 | 13 | 19 | 25 | 31 | 37 | 43 | 49 | 55 | 61 | 67 | 75 76 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CN | CA | CLM | CBL | CYN | CY | CL | CD | L/D | CAB | MACH | | VS |
| C.A.F. | B.C.(1) | B.F.(3) | | | | | | | | | | |

COEFFICIENTS: $\alpha_A$ = -4, 0, 2, 4, 6, 8, 10, 15, 20 → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

$\beta_A$ = -6, -3, 0, 3, 6

NASA-MSFC-MAF

TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

| DATA SET IDENTIFIER | CONFIGURATION | SCHD. α | SCHD. β | RUN NUMBER 0.4 | NO. of RUNS | PARAMETRIC VALUES $\delta_e$ | $\delta_c$ | $\delta_a$ | $\delta_r$ | $\Gamma_w$ | $i_c$ | $i_w$ | CNO POS | WNG POS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RN2421 | B1C2F2WIVI | A | 0 | 737 0 | 1 | -10 | 20 | -10 | 0 | 7°40' | 3 | 0 | 1 | 1 |
| 422 | | 0 | A | 738 0 | | | | | | | | | | |
| 423 | | 6 | | 739 0 | | | | | | | | | | |
| 424 | | 15 | | 740 0 | | | | | | | | | | |
| 425 | | A | 0 | 757 0 | | | | 20 | | | | | | |
| 426 | | 0 | A | 758 0 | | | | | | | | | | |
| 427 | | 6 | | 759 0 | | | | | | | | | | |
| 428 | | 15 | | 760 0 | | | | | | | | | | |
| 429 | | A | 0 | 745 0 | | 10 | | 10 | | | | | | |
| 430 | | 0 | A | 746 0 | | | | | | | | | | |
| 431 | | 6 | | 747 0 | | | | | | | | | | |
| 432 | | 15 | | 748 0 | | | | | | | | | | |
| 433 | | A | 0 | 749 0 | | | | 20 | | | | | | |
| 434 | | 0 | A | 750 0 | | | | | | | | | | |
| 435 | | 6 | | 751 0 | | | | | | | | | | |
| 436 | | 15 | | 752 0 | | | | | | | | | | |
| 437 | B1C2F1 | A | 0 | 413 0 | | - | 0 | - | - | - | | - | | - |
| 438 | | 0 | A | 414 0 | | - | | - | - | - | | - | | - |
| 439 | | 6 | | 415 0 | | - | | - | - | - | | - | | - |
| 440 | | 15 | | 416 0 | | - | | - | - | - | | - | | - |

| 1 | 7 | 13 | 19 | 25 | 31 | 37 | 43 | 49 | 55 | 61 | 67 | 75 76 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CN | CA | CLM | CBL | CYN | CY | CL | CD | CLD | CAB | | | |
| CAF | BP(1) | BP(2) | | | | | | | | MACH | | |

COEFFICIENTS: $\alpha A = -4, 0, 2, 4, 6, 8, 10, 15, 20$ → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES $\beta A = -6, -3, 0, 3, 6$

NASA-MSFC-MAF

TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

| DATA SET IDENTIFIER | CONFIGURATION | SCHD. α | SCHD. β | RUN NUMBER 0.4 | NO. of RUNS | PARAMETRIC VALUES Se | Sc | Sa | Sr | Tw | ic | iw | CNO POS | WNG POS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RN2441 | B1C2F1 | A | 0 | 711 | 1 | – | 10 | – | – | – | 3 | – | 1 | – |
| 442 | | 0 | A | 712 | | – | | – | – | – | | – | | – |
| 443 | | 6 | | 713 | | – | | – | – | – | | – | | – |
| 444 | | 15 | | 714 | | – | | – | – | – | | – | | – |
| 445 | | A | 0 | 715 | | – | 20 | – | – | – | | – | | – |
| 446 | | 0 | A | 716 | | – | | – | – | – | | – | | – |
| 447 | | 6 | | 717 | | – | | – | – | – | | – | | – |
| 448 | | 15 | | 718 | | – | | – | – | – | | – | | – |
| 449 | B1C2F2 | A | 0 | 719 | | – | | – | – | – | | – | | – |
| 450 | | 0 | A | 800 | | – | | – | – | – | | – | | – |
| 451 | | 6 | | 801 | | – | | – | – | – | | – | | – |
| 452 | | 15 | | 802 | | – | | – | – | – | | – | | – |
| 453 | | A | 0 | 803 | | – | 10 | – | – | – | | – | | – |
| 454 | | 0 | A | 804 | | – | | – | – | – | | – | | – |
| 455 | | 6 | | 805 | | – | | – | – | – | | – | | – |
| 456 | | 15 | | 806 | | – | | – | – | – | | – | | – |
| 457 | B1W1V1 | A | 0 | 654 | | -20 | – | 0 | 0 | 7°40' | – | 0 | – | 1 |
| 458 | | 0 | A | 655 | | | – | | | | – | | – | |
| 459 | | 6 | | 656 | | | – | | | | – | | – | |
| 460 | | 15 | | 657 | | | – | | | | – | | – | |

| 1 | 7 | 13 | 19 | 25 | 31 | 37 | 43 | 49 | 55 | 61 | 67 | 75 76 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GN | CA | CLM | CBL | CYN | CY | CL | CD | L/D | CAB | MACH | | 15 |
| CAF | BF(1) | BF(2) | | | | | | | | | | |

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

αA = -4, 0, 2, 4, 6, 8, 10, 15, 20

βA = -6, -3, 0, 3, 6

NASA-MSFC-MAF

TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

| DATA SET IDENTIFIER | CONFIGURATION | SCHD. α | SCHD. β | RUN NUMBER | NO. of RUNS | PARAMETRIC VALUES Se | Sc | Sa | Sr | $\Gamma_N$ | $i_c$ | $i_N$ | CNO POS | WNG POS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RN2461 | BIWIVI | A | 0 | 0.4 | 1 | -10 | - | 0 | 0 | 1°40' | - | 0 | - | 1 |
| 462 | | 0 | A | 0 | | | - | | | | - | | - | |
| 463 | | 6 | ↓ | 0 | | | - | | | | - | | - | |
| 464 | | 15 | ↓ | 0 | | ↓ | - | | | | - | | - | |
| 465 | | A | 0 | 0 | | 0 | - | | | | - | | - | |
| 466 | | 0 | A | 0 | | | - | | | | - | | - | |
| 467 | | 6 | ↓ | 0 | | | - | | | | - | | - | |
| 468 | | 15 | ↓ | 0 | | ↓ | - | | | | - | | - | |
| 469 | | A | 0 | 0 | | 10 | - | | | | - | | - | |
| 470 | | 0 | A | 0 | | | - | | | | - | | - | |
| 471 | | 6 | ↓ | 0 | | | - | | | | - | | - | |
| 472 | | 15 | ↓ | 0 | | ↓ | - | | | | - | | - | |
| 473 | | A | 0 | 0 | | 20 | - | | | | - | | - | |
| 474 | | 0 | A | 0 | | | - | | | | - | | - | |
| 475 | | 6 | ↓ | 0 | | | - | | | | - | | - | |
| 476 | | 15 | ↓ | 0 | | ↓ | - | | | | - | | - | |
| 477 | | A | 0 | 0 | | 30 | - | | | | - | | - | |
| 478 | | 0 | A | 0 | | | - | | | | - | | - | |
| 479 | | 6 | ↓ | 0 | | | - | | | | - | | - | |
| 480 | | 15 | ↓ | 0 | | ↓ | - | ↓ | ↓ | ↓ | - | ↓ | - | ↓ |

| 1 | 7 | 13 | 19 | 25 | 31 | 37 | 43 | 49 | 55 | 61 | 67 | 75 76 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GN | CA | CLM | CBL | CYN | CY | CL | CD | L/D | CAB | | | |
| CAF | BPC(1) | RPC(2) | | | | | | | | MACH | | |

COEFFICIENTS: $\alpha_A$ = -4, 0, 2, 4, 6, 8, 10, 15, 20 → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

$\beta_A$ = -6, -3, 0, 3, 6

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TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

| DATA SET IDENTIFIER | CONFIGURATION | SCHD. α | SCHD. β | RUN NUMBER 0.4 | NO. of RUNS | PARAMETRIC VALUES Se | Sc | Sa | Sr | Tw | ic | iw | CNO POS | WNO POS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RN2481 | B1W1V1 | A | 0 | 765.0 | 1 | 0 | - | 10 | 0 | 740 | - | 0 | - | 1 |
| 482 | | 0 | A | 766.0 | | | - | | | | - | | - | |
| 483 | | 6 | | 767.0 | | | - | | | | - | | - | |
| 484 | | 15 | | 768.0 | | | - | | | | - | | - | |
| 485 | | A | 0 | 777.0 | | | - | 20 | | | - | | - | |
| 486 | | 0 | A | 778.0 | | | - | | | | - | | - | |
| 487 | | 6 | | 779.0 | | | - | | | | - | | - | |
| 488 | | 15 | | 780.0 | | | - | | | | - | | - | |
| 489 | | A | 0 | 761.0 | | -10 | - | 10 | | | - | | - | |
| 490 | | 0 | A | 762.0 | | | - | | | | - | | - | |
| 491 | | 6 | | 763.0 | | | - | | | | - | | - | |
| 492 | | 15 | | 764.0 | | | - | | | | - | | - | |
| 493 | | A | 0 | 781.0 | | -10 | - | 20 | | | - | | - | |
| 494 | | 0 | A | 782.0 | | | - | | | | - | | - | |
| 495 | | 6 | | 783.0 | | | - | | | | - | | - | |
| 496 | | 15 | | 784.0 | | | - | | | | - | | - | |
| 497 | | A | 0 | 769.0 | | 10 | - | 10 | | | - | | - | |
| 498 | | 0 | A | 770.0 | | | - | | | | - | | - | |
| 499 | | 6 | | 771.0 | | | - | | | | - | | - | |
| 500 | | 15 | | 772.0 | | | - | | | | - | | - | |

| 1 | 7 | 13 | 19 | 25 | 31 | 37 | 43 | 49 | 55 | 61 | 67 | 75 76 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CN CAF | CA BC(1) | CLM BP(3) | CBL | CYN | CY | CL | CD | L/D | CAB | MACH | | US |

COEFFICIENTS: IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

αA = -4, 0, 2, 4, 6, 8, 10, 15, 20

βA = -6, -3, 0, 3, 6

NASA-MSFC-MAF

TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

| DATA SET IDENTIFIER | CONFIGURATION | SCHD. α | SCHD. β | RUN NUMBER 0,4 | NO. of RUNS | PARAMETRIC VALUES Se | Sc | Sa | Sr | Γw | ic | iw | CHD POS | WAG POS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RN2501 | B1W1V1 | A | 0 | 774 0 | 1 | 10 | - | 20 | 0 | 7°40' | - | 0 | - | 1 |
| 502 | | 0 | A | 774 0 | | | - | | | | - | | - | |
| 503 | | 6 | | 775 0 | | | - | | | | - | | - | |
| 504 | | 15 | | 776 0 | | | - | | | | - | | - | |
| 505 | | 0 | | 785 0 | | 0 | - | 0 | -5 | | - | | - | |
| 506 | | 6 | | 786 0 | | | - | | | | - | | - | |
| 507 | | 15 | | 787 0 | | | - | | | | - | | - | |
| 508 | | 0 | | 788 0 | | | - | | -10 | | - | | - | |
| 509 | | 6 | | 789 0 | | | - | | | | - | | - | |
| 510 | | 15 | | 790 0 | | | - | | | | - | | - | |
| 511 | B1C2F1W1V1 | 0 | | 701 0 | | | 0 | | -5 | | 3 | | 1 | |
| 512 | | 6 | | 702 0 | | | | | | | | | | |
| 513 | | 15 | | 703 0 | | | | | | | | | | |
| 514 | | 0 | | 710 0 | | | | | -10 | | | | | |
| 515 | | 6 | | 711 0 | | | | | | | | | | |
| 516 | | 15 | | 712 0 | | | | | | | | | | |
| 517 | | A | 0 | 561 0 | | | | | 0 | 15° | | | | |
| 518 | | 0 | A | 562 0 | | | | | | | | | | |
| 519 | | 6 | | 563 0 | | | | | | | | | | |
| 520 | | 15 | | 564 0 | | | | | | | | | | |

| 1 | 7 | 13 | 19 | 25 | 31 | 37 | 43 | 49 | 55 | 61 | 67 | 75 76 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CN | CA | CLM | CBL | CYN | CY | CL | CD | LID | CAB | | | L3 |
| C.A.E. | B.P.(1.) | B.P.(3.) | | | | | | | | WASH | | |

COEFFICIENTS: | IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

αA = -4, 0, 2, 4, 6, 8, 10, 15, 20

βA = -6, -3, 0, 3, 6

NASA-MSFC-MAF

TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

| DATA SET IDENTIFIER | CONFIGURATION | SCHD. α | SCHD. β | RUN NUMBER 0.4 | NO. of RUNS | PARAMETRIC VALUES Se | Sc | Sa | Sr | $\Gamma_N$ | $i_c$ | $i_N$ | CNO POS | WWG POS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RN2521 | B1C2F1W1V1 | A | 0 | 563 0 | 1 | 0 | 0 | 0 | 0 | 15 | 3 | 0 | 2 | 1 |
| 522 | ↓ | 0 | A | 564 0 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |
| 523 | | 6 | ↓ | 565 0 | | | | | | | | | | |
| 524 | ↓ | 15 | ↓ | 566 0 | | | | | | | | | ↓ | |
| 525 | B1C2F1W1V2D1 | A | 0 | 534 0 | | | | | | | | | 1 | |
| 526 | ↓ | 0 | A | 535 0 | | | | | | | | | ↓ | |
| 527 | | 6 | ↓ | 536 0 | | | | | | | | | | |
| 528 | | 15 | ↓ | 537 0 | | | | | | | | | ↓ | |
| 529 | | A | 0 | 569 0 | | | | | | | | | 2 | |
| 530 | | 0 | A | 570 0 | | | | | | | | | ↓ | |
| 531 | | 6 | ↓ | 571 0 | | | | | | | | | | |
| 532 | ↓ | 15 | ↓ | 572 0 | | | | | | | | ↓ | ↓ | |
| 533 | B1C2F1W2D1 | A | 0 | 571 0 | | | | | | | | 3 | 1 | |
| 534 | ↓ | 0 | A | 572 0 | | | | | | | | ↓ | ↓ | |
| 535 | | 6 | ↓ | 573 0 | | | | | | | | | | |
| 536 | | 15 | ↓ | 574 0 | | | | | | | | | ↓ | |
| 537 | | A | 0 | 575 0 | | | | | | | | | 2 | |
| 538 | | 0 | A | 576 0 | | | | | | | | | ↓ | |
| 539 | | 6 | ↓ | 577 0 | | | | | | | | | | |
| 540 | ↓ | 15 | ↓ | 578 0 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |

| 1 | 7 | 13 | 19 | 25 | 31 | 37 | 43 | 49 | 55 | 61 | 67 | 75 76 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CN | CA | CLM | CBL | CYN | CY | CL | CD | L/D | CAB | | | IS |
| CAE | BP(1,2) | RC(3) | | | | | | | | MACH | | |

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

αA = -4, 0, 2, 4, 6, 8, 10, 15, 20

βA = -6, -3, 0, 3, 6

NASA-MSFC-MAF

TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

| DATA SET IDENTIFIER | CONFIGURATION | SCHD. α | SCHD. β | RUN NUMBER 0.4 | NO. of RUNS | PARAMETRIC VALUES $\delta_e$ | $\delta_c$ | $\delta_a$ | $\delta_r$ | $\Gamma_w$ | $i_c$ | $i_N$ | CNO POS | WING DOG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RN2541 | B1C2F1W1V1 | A | 0 | 541 | 1 | 0 | 10 | 0 | 0 | 7°40' | 3 | 0 | 1 | 1 |
| 542 | ↓ | 0 | A | 542 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |
| 543 | ↓ | 6 | ↓ | 543 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |
| 544 | ↓ | 15 | ↓ | 544 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |
| 545 | ↓ | A | 0 | 603 | ↓ | ↓ | 20 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |
| 546 | ↓ | 0 | A | 604 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |
| 547 | ↓ | 6 | ↓ | 605 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |
| 549 | ↓ | 15 | ↓ | 606 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |
| 549 | B1C2F2W1V1 | A | 0 | 631 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | 2 | ↓ |
| 550 | ↓ | 0 | A | 632 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |
| 551 | ↓ | 6 | ↓ | 633 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |
| 552 | ↓ | 15 | ↓ | 634 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |
| 553 | B1C2F1W1V2 | A | 0 | 226 | ↓ | ↓ | 0 | ↓ | − | ↓ | ↓ | ↓ | 1 | ↓ |
| 554 | ↓ | 0 | A | 427 | ↓ | ↓ | ↓ | ↓ | − | ↓ | ↓ | ↓ | ↓ | ↓ |
| 555 | ↓ | 6 | ↓ | 428 | ↓ | ↓ | ↓ | ↓ | − | ↓ | ↓ | ↓ | ↓ | ↓ |
| 556 | ↓ | 15 | ↓ | 481 | ↓ | ↓ | ↓ | ↓ | − | ↓ | ↓ | ↓ | ↓ | ↓ |
| 557 | B1C2F1W1V1 | A | 0 | 551 | ↓ | ↓ | ↓ | ↓ | 0 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 558 | ↓ | 0 | A | 552 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |
| 559 | ↓ | 6 | ↓ | 553 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |
| 560 | ↓ | 15 | ↓ | 554 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |

| 1 | 7 | 13 | 19 | 25 | 31 | 37 | 43 | 49 | 55 | 61 | 67 | 75 76 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CN | CA | CLM | CRL | CYN | CY | CL | CD | L/D | CAB | | | VS |
| C.A.F. | B.C.L.W. | APC(3) | | | | | | | | MACH | | |

COEFFICIENTS: $\alpha A = -4, 0, 2, 4, 6, 8, 10, 15, 20$ → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

$\beta A = -6, -3, 0, 3, 6$

NASA-MSFC-MAF

TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

| DATA SET IDENTIFIER | CONFIGURATION | SCHD. α | SCHD. β | RUN NUMBER 0.4 | NO. of RUNS | PARAMETRIC VALUES $\delta_e$ | $\delta_c$ | $\delta_a$ | $\delta_r$ | $\Gamma_w$ | $i_c$ | $i_N$ | CND POS | WING POS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RN2561 | B1C2F1W1V1D2 | A | 0 | 847 0 | 1 | 0 | 0 | 0 | 0 | 7°40' | 3 | 0 | 1 | 1 |
| 562 | | 0 | A | 848 0 | | | | | | | | | | |
| 563 | | 6 | ↓ | 849 0 | | | | | | | | | | |
| 564 | ↓ | 15 | ↓ | 850 0 | | | | | | | | | | |
| 565 | B1C3K3W1V1 | A | 0 | 851 0 | | | | | | | | | | |
| 566 | | 0 | A | 800 0 | | | | | | | | | | |
| 567 | | 6 | ↓ | 801 0 | | | | | | | | | | |
| 568 | ↓ | 15 | ↓ | 802 0 | | | | | | | | | | |
| 569 | B1C2F1W1V1D3 | A | 0 | 852 0 | | | | | | | | | | |
| 570 | | 0 | A | 853 0 | | | | | | | | | | |
| 571 | | 6 | ↓ | 854 0 | | | | | | | | | | |
| 572 | | 15 | ↓ | 855 0 | | | | | | | | | | |
| 573 | B2C2F1W1V1 | A | 0 | 857 0 | | | | | | | | | | |
| 574 | | 0 | A | 858 0 | | | | | | | | | | |
| 575 | | 6 | ↓ | 859 0 | | | | | | | | | | |
| 576 | ↓ | 15 | ↓ | 860 0 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |

| 1 | 7 | 13 | 19 | 25 | 31 | 37 | 43 | 49 | 55 | 61 | 67 | 75 76 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CN | CA | CLM | CRL | CYN | CY | CL | CD | LID | CAB | | | LX |
| CAF | BP(1) | BP(3) | | | | | | | | MACH | | |

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

$\alpha_A$ : -4, 0, 2, 4, 6, 8, 10, 15, 20

BA : -6, -3, 0, 3, 6

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## TEST FACILITY DESCRIPTION

The test program was conducted in the NSRDC 7 x 10-foot transonic wind tunnel, which is a closed-loop, continuous flow tunnel with a Mach number range from M = 0.30 to M = 1.20 at simulated altitudes from sea level to 40,000 feet. Reynolds number can be varied between $1 \times 10^6$ and $3 \times 10^6$ per foot by adjusting the settling chamber total pressure.

TABLE I. SADSAC NOMENCLATURE OF AERODYNAMIC COEFFICIENTS

| COEFFICIENT | COEFFICIENT NAME | SADSAC NOMENCLATURE | | |
|---|---|---|---|---|
| | | BODY AXIS | STABILITY AXIS | WIND AXIS |
| $C_A$ | Total Axial Force | CA | - | - |
| $C_{AB}$ | Base Axial Force | CAB | -- | - |
| $C_{AF}$ | Forebody Axial Force | CAF | - | - |
| $C_D$ | Total Drag Force | - | CD | CDTOTL |
| $C_{DB}$ | Base Drag Force | - | CDB | CDBASE |
| $C_{DF}$ | Forebody Drag Force | - | CDF | CDFORE |
| $C_L$ | Lift Force | - | CL | CL |
| $C_N$ | Normal Force | CN | - | - |
| $C_Y$ | Side Force | CY | CY | CC |
| $C_\ell$ | Rolling Moment | CBL | CSL | CWL |
| $C_m$ | Pitching Moment | CLM | CLM | CPM |
| $C_n$ | Yawing Moment | CYN | CLN | CLN |
| L/D | Lift-To-Drag Force Ratio | - | L/D | CL/CD |
| L/D | Lift-To-Forebody Drag Force Ratio | - | L/DF | CL/CDF |
| N/A | Normal-To-Axial Force Ratio | N/A | - | - |
| N/A | Normal-To-Forebody Axial Force Ratio | CN/CAF | - | - |

TABLE II.

TEST CONDITIONS
TEST NSRDC 3110

| MACH NUMBER | REYNOLDS NUMBER per unit length | DYNAMIC PRESSURE (pounds/sq. inch) | STAGNATION TEMPERATURE (degrees Fahrenheit) |
|---|---|---|---|
| 0.38 | $2.69 \times 10^6$ | 1.35 | |
| | | | |
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| | | | |

BALANCE UTILIZED: TSB-24

| | CAPACITY: | ACCURACY: | COEFFICIENT TOLERANCE: |
|---|---|---|---|
| NF | 1500 # | 7.5 # | 0.0290 |
| SF | 500 # | 2.5 # | 0.0097 |
| AF | 100 # | 0.5 # | 0.0020 |
| PM | 1850 in # | 9.25 in # | 0.0009 |
| YM | 625 in # | 3.13 in # | 0.0003 |
| RM | 760 in # | 3.75 in # | 0.0004 |

COMMENTS:

## DATA REDUCTION

This section includes a description of the data reduction accomplished by NSRDC and by SADSAC

For SADSAC

A six-component strain gauge balance was used to measure the force and moment data for this test (see Figure 1 for axis system orientation); four base pressures were also measured but only two were used to calculate the base axial force coefficient (CAB). Reference data utilized to reduce the measured data to coefficient form are listed below:

$S_{ref}$ = Wing W1 planform area = 1.355 $ft^2$

$\ell_{ref}$ = $b_{ref}$ = Body B1 length = 41.436 in

The moment reference point (MRP) for all data in which B1 was tested is 31.14 inches aft of the fuselage nose, on the lateral centerline and 0.225 inch above the vertical centerline of the model. The MRP for all data in which B2 was tested is 26.64 inches aft of the nose, on the lateral centerline, and 0.225 inch above the model vertical centerline.

Data submitted to SADSAC were CN, CA, CLM, CBL, CYN, CY, CL, CD, L/D, CAB, CAF, BP(1), and BP(3); BP(1) and BP(3) are base pressure coefficients applicable to base pressure tubes 1 and 3 (see Figure 4). The base axial force coefficient (CAB) was calculated as listed below:

$$CAB = BP(1)\,[A1/S_{ref}] + [BP(1) - BP(3)]\,[A2/S_{ref}] + BP(3)\,[A3/S_{ref}]$$

A1 = total area of 10 nozzles at the throats = 0.0121 $ft^2$

A2 = total area of 10 nozzles at the nozzle exits minus the total throat area (A1)

A3 = total base area minus A1 and A2

A3 = 0.1312 $ft^2$ for high wing

A3 = 0.1372 $ft^2$ for low wing

By SADSAC

A request for incremental effects of control deflection required additional processing of the basic data by SADSAC. Coefficient data was obtained at even values of angle of attack ($\alpha$ = -2, 0, 4, 6, 8 and 10°) and then used to determine the difference between the datasets, i.e. $(CN)_{\delta_e=10} - (CN)_{\delta_e=0}$. Incremental data were obtained for the following coefficients: CL, CLM, CD, L/D, CYN, CBL, and CY.

## SUMMARY DATA PLOT INDEX

| CONFIGURATION VARIABLE | CONFIGURATION CONDITIONS FIXED | | | | | | | PLOTTED COEFFICIENT SCHEDULE | PAGES |
|---|---|---|---|---|---|---|---|---|---|
| | WNDSIZ | INCIDW | DINDRL | WNGPOS | CNDSIZ | INCIDC | CNDPOS | | |
| Canard Size | W1V1 | 0° | 7.66° | 1 | - | 3° | 1 | A | 1-8 |
| Canard Size | W1V1 | 0° | 7.66° | 1 | - | 3° | 1 | B | 9-11 |
| Canard Position | W1V1 | 0° | 7.66° | 1 | C2 | 3° | - | A | 12-19 |
| Canard Position | W1V1 | 0° | 7.66° | 1 | C2 | 3° | - | B | 20-22 |
| Canard Incidence | W1V1 | 0° | 7.66° | 1 | C2 | - | 1 | A | 23-30 |
| Canard Incidence | W1V1 | 0° | 7.66° | 1 | C2 | - | 1 | B | 31-33 |
| Canard Size | W1V1 | 0° | 7.66° | 1 | - | 3° | 2 | A | 34-41 |
| Canard Size | W1V1 | 0° | 7.66° | 1 | - | 3° | 2 | B | 42-44 |
| Canard Position | W1V1 | 0° | 7.66° | 2 | C2 | 3° | - | A | 45-52 |
| Canard Position | W1V1 | 0° | 7.66° | 2 | C2 | 3° | - | B | 53-55 |
| Canard Incidence | W1V1 | 0° | 7.66° | 1 | C2 | - | 2 | A | 56-63 |
| Canard Incidence | W1V1 | 0° | 7.66° | 1 | C2 | - | 2 | B | 64-66 |
| Canard Size | W1V1 | 3° | 7.66° | 1 | - | 3° | 1 | A | 67-74 |
| Canard Size | W1V1 | 3° | 7.66° | 1 | - | 3° | 1 | B | 75-77 |
| Canard Position | W1V1 | 3° | 7.66° | 1 | C2 | 3° | - | A | 78-85 |
| Canard Position | W1V1 | 3° | 7.66° | 1 | C2 | 3° | - | B | 86-88 |
| Canard Incidence | W1V1 | 3° | 7.66° | 1 | C2 | - | 1 | A | 89-96 |
| Canard Incidence | W1V1 | 3° | 7.66° | 1 | C2 | - | 1 | B | 97-99 |

SUMMARY DATA PLOT INDEX
(CONTINUED)

| CONFIGURATION VARIABLE | CONFIGURATION CONDITIONS FIXED | | | | | | | PLOTTED COEFFICIENT SCHEDULE | PAGES |
|---|---|---|---|---|---|---|---|---|---|
| | WNDSIZ | INCIDW | DINDRL | WNGPOS | CNDSIZ | INCIDC | CNDPOS | | |
| Canard Size | W1V1 | 3° | 7.66° | 1 | - | 3° | 2 | A | 100-107 |
| Canard Size | W1V1 | 3° | 7.66° | 1 | - | 3° | 2 | B | 108-110 |
| Canard Position | W1V1 | 3° | 7.66° | 2 | C2 | 3° | - | A | 111-118 |
| Canard Position | W1V1 | 3° | 7.66° | 2 | C2 | 3° | - | B | 119-121 |
| Canard Incidence | W1V1 | 3° | 7.66° | 2 | C2 | - | 2 | A | 122-129 |
| Canard Incidence | W1V1 | 3° | 7.66° | 2 | C2 | - | 2 | B | 130-132 |
| Canard Size | W1V1 | 0° | 7.66° | 2 | - | 3° | 1 | A | 133-140 |
| Canard Size | W1V1 | 0° | 7.66° | 2 | - | 3° | 1 | B | 141-143 |
| Canard Incidence | W1V1 | 0° | 7.66° | 2 | C2 | - | 1 | A | 144-151 |
| Canard Incidence | W1V1 | 0° | 7.66° | 2 | C2 | - | 1 | B | 152-154 |
| Canard Size | W1V1 | 0° | 7.66° | 2 | C2 | 3° | 1 | A | 155-162 |
| Canard Size | W1V1 | 0° | 7.66° | 2 | C2 | 3° | 1 | B | 163-165 |
| Canard Incidence | W1V1 | 0° | 7.66° | 2 | C2 | - | 1 | A | 166-173 |
| Canard Incidence | W1V1 | 0° | 7.66° | 2 | C2 | - | 1 | B | 174-176 |
| Canard Size | W1V1 | 3° | 7.66° | 2 | - | 3° | 1 | A | 177-184 |
| Canard Size | W1V1 | 3° | 7.66° | 2 | - | 3° | 1 | B | 185-187 |

SUMMARY DATA PLOT INDEX
(CONTINUED)

| CONFIGURATION VARIABLE | CONFIGURATION CONDITIONS FIXED | | | | | | | PLOTTED COEFFICIENT SCHEDULE | PAGES |
|---|---|---|---|---|---|---|---|---|---|
| | WNDSIZ | INCIDW | DIHDRL | WNGPOS | CNDSIZ | INCIDC | CNDPOS | | |
| Canard Incidence | W1V1 | 3° | 7.66° | 2 | C2 | 3° | 1 | A | 188-195 |
| Canard Incidence | W1V1 | 3° | 7.66° | 2 | C2 | 3° | 1 | B | 196-198 |
| Canard Size | W1 | 3° | 7.66° | 2 | - | 3° | 2 | A | 199-206 |
| Canard Size | W1 | 3° | 7.66° | 2 | - | 3° | 2 | B | 207-209 |
| Canard Incidence | W1 | 3° | 7.66° | 2 | C2 | - | 2 | A | 210-217 |
| Canard Incidence | W1 | 3° | 7.66° | 2 | C2 | - | 2 | B | 218-220 |
| Canard Size | W1 | 0° | 7.66° | 1 | - | 15° | 1 | A | 221-228 |
| Canard Size | W1 | 0° | 7.66° | 1 | - | 15° | 1 | B | 229-231 |
| Canard Position | W1 | 0° | 7.66° | 1 | C2 | 15° | - | A | 232-239 |
| Canard Position | W1 | 0° | 7.66° | 1 | C2 | 15° | - | B | 240-242 |
| Canard Size | W1 | 0° | 7.66° | 1 | - | 15° | 2 | A | 243-250 |
| Canard Size | W1 | 0° | 7.66° | 1 | - | 15° | 2 | B | 251-253 |
| Canard Position | W1 | 0° | 7.66° | 2 | C2 | 15° | - | A | 254-261 |
| Canard Position | W1 | 0° | 7.66° | 2 | C2 | 15° | - | B | 262-264 |
| Canard Size | W1 | 3° | 7.66° | 1 | - | 15° | 1 | A | 265-272 |
| Canard Size | W1 | 3° | 7.66° | 1 | - | 15° | 1 | B | 273-275 |
| Canard Position | W1 | 3° | 7.66° | 1 | C2 | 15° | - | A | 276-283 |
| Canard Position | W1 | 3° | 7.66° | 1 | C2 | 15° | - | B | 284-286 |

SUMMARY DATA PLOT INDEX
(CONTINUED)

| CONFIGURATION VARIABLE | CONFIGURATION CONDITIONS FIXED | | | | | | | PLOTTED COEFFICIENT SCHEDULE | PAGES |
|---|---|---|---|---|---|---|---|---|---|
| | WNDSIZ | INCIDW | DINDRL | WNGPOS | CNDSIZ | INCIDC | CNDPOS | | |
| Canard Size | W1 | 3° | 7.66° | 1 | - | 15° | - | A | 287-294 |
| Canard Size | W1 | 3° | 7.66° | 1 | - | 15° | - | B | 295-297 |
| Canard Position | W1 | 3° | 7.66° | 1 | C2 | 15° | - | A | 298-305 |
| Canard Position | W1 | 3° | 7.66° | 1 | C2 | 15° | - | B | 306-308 |
| Canard Size | W1 | 3° | 7.66° | 2 | - | 15° | 1 & 2 | A & B | 309-352 |
| Canard Position | W1 | 0° & 3° | 7.66° | 1 & 2 | C1 | 3° & 15° | 1 & 2 | A & B | 353-440 |
| Canard Incidence | W1 | 0° & 3° | 7.66° | 1 & 2 | C1 | - | 1 & 2 | A & B | 441-528 |
| Wing Size | - | 0° & 3° | 7.66° | 1 | C2 | 3° & 15° | 1 & 2 | A & B | 529-616 |
| Wing Size | - | 0° & 3° | 7.66° | 2 | C2 | 3° & 15° | 1 & 2 | A & B | 617-704 |
| Wing Size | - | 0° & 3° | 7.66° | 1 | C1 | 3° & 15° | 1 & 2 | A & B | 705-792 |
| Wing Size | - | 0° & 3° | 7.66° | 2 | C1 | 3° & 15° | 1 & 2 | A & B | 793-880 |
| Wing Location | W1V1<br>W1V2<br>W2<br>W1 | 0° | 7.66° | - | C2 | 3° & 15° | 1 & 2 | A & B | 881-1001 |
| Wing Location | W1V1<br>W1V2<br>W2<br>W1 | 3° | 7.66° | - | C2 | 3° & 15° | 1 & 2 | A & B | 1002-1133 |

SUMMARY DATA PLOT INDEX
(CONTINUED)

| CONFIGURATION VARIABLE | CONFIGURATION CONDITIONS FIXED | | | | | | | PLOTTED COEFFICIENT SCHEDULE | PAGES |
|---|---|---|---|---|---|---|---|---|---|
| | WNDSIZ | INCIDW | DIHDRL | WNGPOS | CNDSIZ | INCIDC | CNDPOS | | |
| Wing Location | W1V1<br>W1V2 | 0° | 7.66° | - | C1 | 3° & 15° | 1 & 2 | A & B | 1134-1221 |
| Wing Location | W1V1<br>W1V2 | 3° | 7.66° | - | C1 | 3° & 15° | 1 & 2 | A & B | 1222-1309 |
| Wing Incidence | W1V1 | - | 7.66° | 1 & 2 | C1 & C2 | 3° & 15° | 1 & 2 | A & B | 1310-1485 |
| Wing Incidence | W1V2 | - | 7.66° | 1 & 2 | C1 & C2 | 3° & 15° | 1 & 2 | A & B | 1486-1661 |
| Wing Incidence | W2 | - | 7.66° | 1 & 2 | C2 | 3° & 15° | 1 & 2 | A & B | 1662-1738 |
| Wing Dihedral | W1V1<br>W1V2<br>W2 | 0° & 3° | - | 1 | C2 | 3° | 1 & 2 | A & B | 1739-1804 |
| Elevon Deflection | W1V1 | 0° | 7.66° | 1 | C2 & Off | 3° | 1 | A & B | 1805-1848 |
| Wing Tip Rudder Deflection | W1V1 | 0° | 7.66° | 1 | C2 & Off | 3° | 1 | A & B | 1849-1854 |
| Dorsal Fin | W1V1<br>W1V2 | 0° | 7.66° | 1 | C2 | 3° | 1 | A & B | 1855-1876 |
| Canard Flap Deflection and Size | W1V1 & Off | 0° | 7.66° | 1 | C2 | 3° | 1 | A & B | 1877-1898 |
| Canard Effectiveness | W1V1 & Off | 0° | 7.66° | 1 | C2 | 3° | 1 | A & B | 1899-1964 |
| Aileron Effectiveness | W1V1 | 0° | 7.66° | 1 | C2 & Off | 3° | 1 | A & B | 1976-2074 |

SUMMARY DATA PLOT INDEX
(CONTINUED)

| CONFIGURATION VARIABLE | CONFIGURATION CONDITIONS FIXED | | | | | | | PLOTTED COEFFICIENT SCHEDULE | PAGES |
|---|---|---|---|---|---|---|---|---|---|
| | WNDSIZ | INCIDW | DIHDRL | WNGPOS | CNDSIZ | INCIDC | CNDPOS | | |
| Elevon Effectiveness | W1V1 | 0° | 7.66° | 1 | C2 & Off | 3° | 1 | C | 2075-2090 |
| Rudder Effectiveness | W1V1 | 0° | 7.66° | 1 | C2 & Off | 3° | 1 | D | 2091-2102 |
| Canard Effectiveness | W1V1 | 0° | 7.66° | 1 | C2 | 3° | 1 | E | 2103-2126 |
| Aileron Effectiveness | W1V1 | 0° | 7.66° | 1 | C2 & Off | 3° | 1 | F | 2127-2180 |
| Directional Stability At High Alpha | W1V1<br>W1V2<br>W2 | 0° & 3° | 7.66° | 1 & 2 | C1 & C2 | 3° & 15° | 1 & 2 | G | 1281-2207 |

PLOTTED COEFFICIENT SCHEDULE:

(A) CN, CA, CLM, CL, CD, L/D & CAB vs. ALPHA
CLM vs. CL

(B) CBL, CYN & CY vs. BETA

(C) DCL, DCLM, DCD & DL/D vs. ELEVTR

(D) DCYN, DCBL, DCY, DCD, DCLM, & DL/D vs. RUDDER

(E) DCL, DCLM, DCD & DL/D vs. CANARD

(F) DCYN, DCBL, DCY, DCD, DCLM & DL/D vs. AILRON

(G) CBL, CYN & CY vs. ALPHA

Notes:

1. Positive directions of force coefficients moment coefficients, and angles are indicated by arrows.

2. For clarity, origins of wind and stability axes have been displaced from the center of gravity.

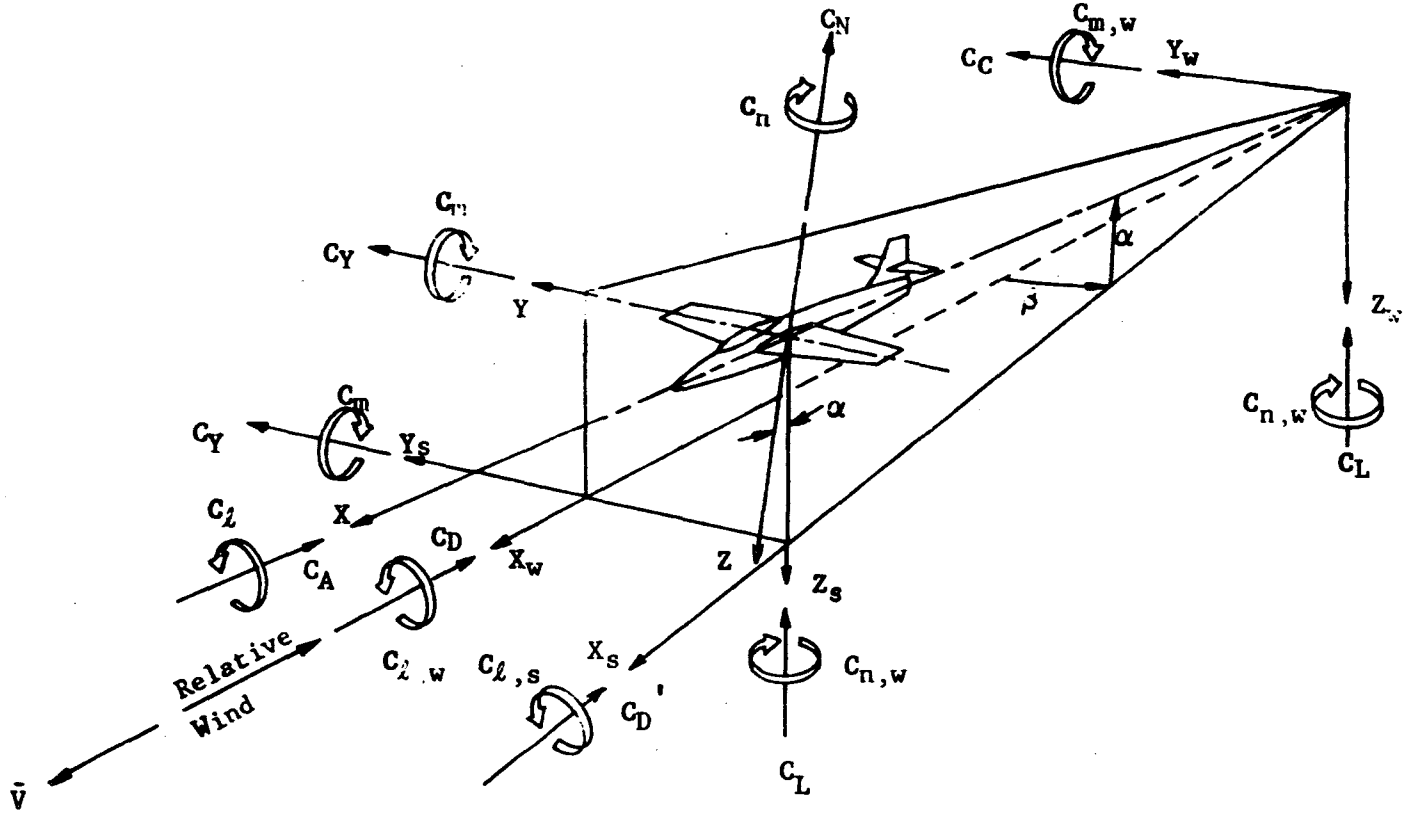


Figure 1. Axis systems, showing direction and sense of force and moment coefficients, angle of attack, and sideslip angle

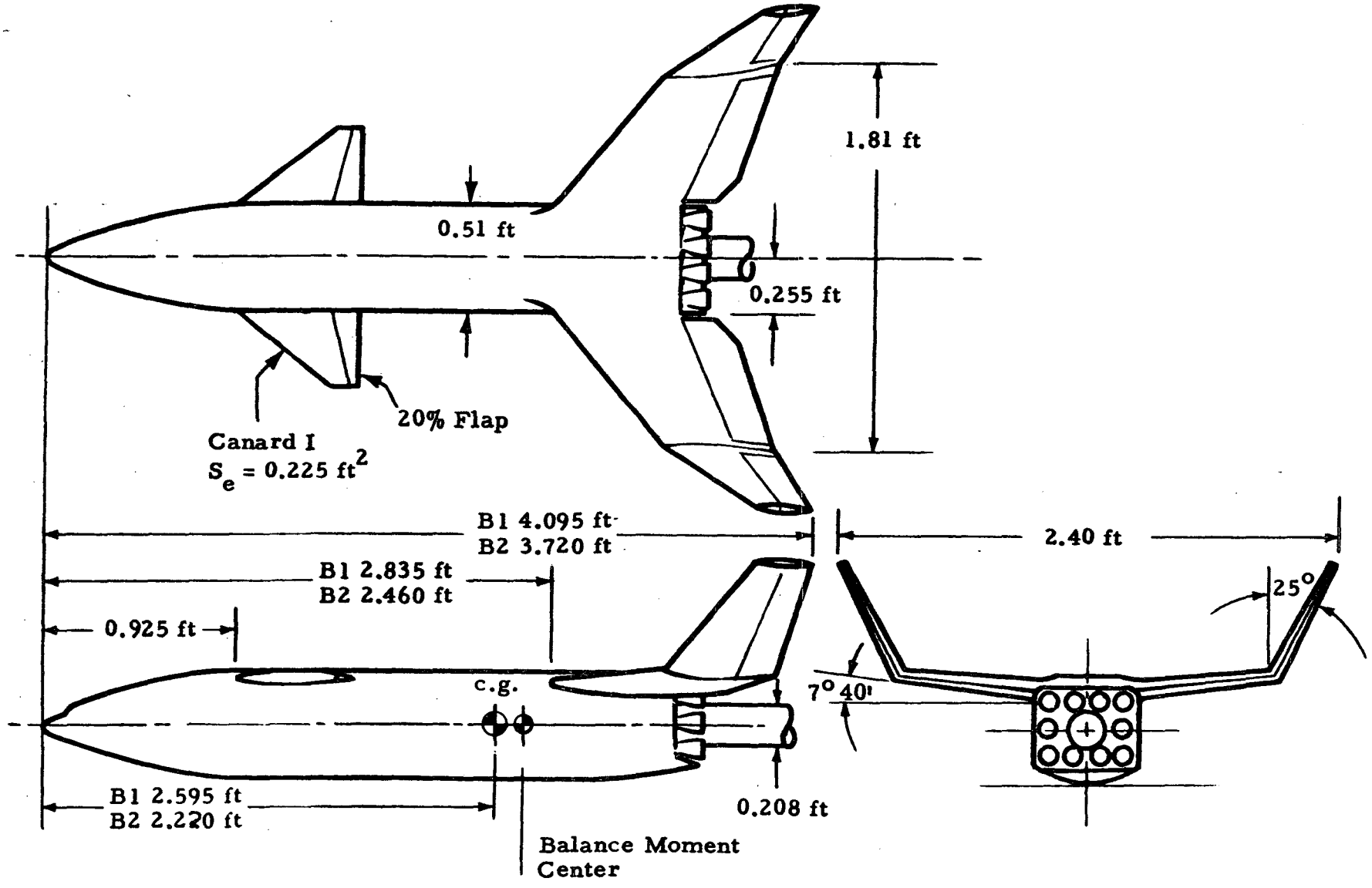


Fig. 2. General Arrangement of a Typical High Wing – High Canard Configuration

NOT REPRODUCIBLE

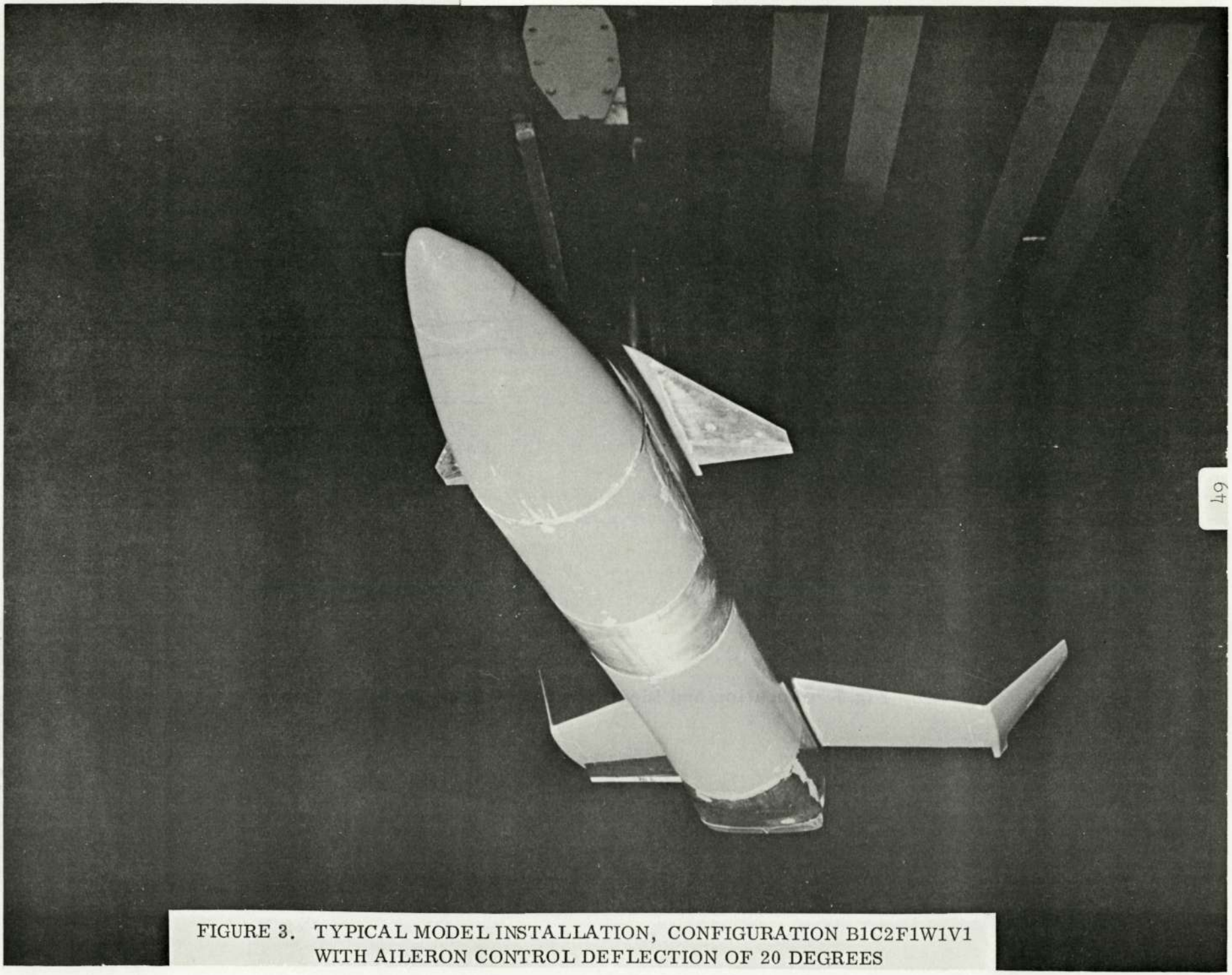

FIGURE 3. TYPICAL MODEL INSTALLATION, CONFIGURATION B1C2F1W1V1 WITH AILERON CONTROL DEFLECTION OF 20 DEGREES

Fig. 4, - Location and Identification of Base Pressure Tubes

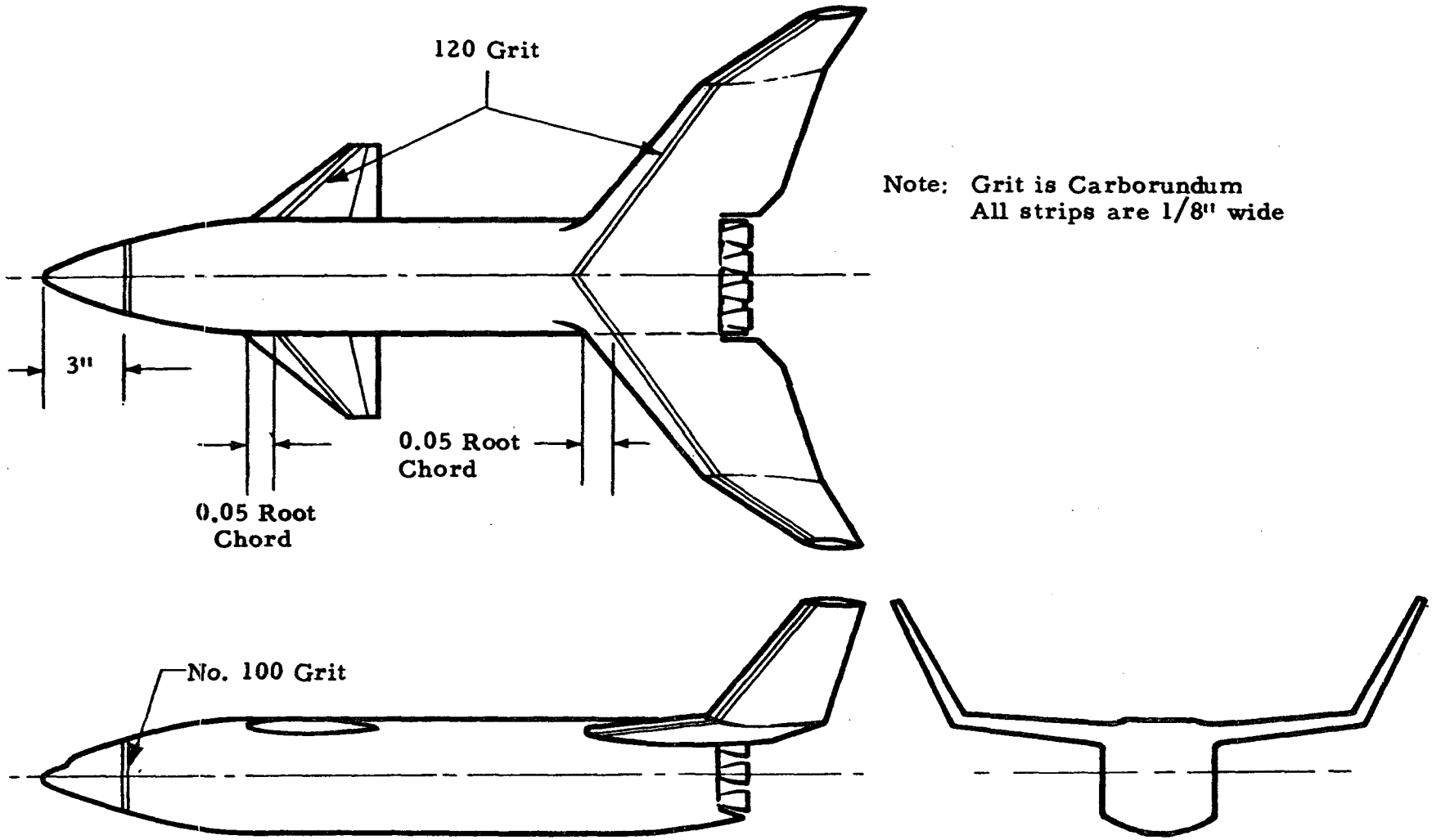


Fig. 5 - Typical Transition Grit Installation on Body, Wing and Canard

TABLE III.

MODEL COMPONENT: BODY - B1

GENERAL DESCRIPTION: Baseline MDAC booster body 256-19A-X
X = total length is 229 vs 241.7 for 19A

DRAWING NUMBER: NSRDC A-152011-A

| DIMENSIONS: | | FULL-SCALE | MODEL SCALE |
|---|---|---|---|
| Length | | 229 ft | 3.453 ft |
| Max. Width | | 34 ft | 0.51 ft |
| Max. Depth | | 34 ft | 0.51 ft |
| Fineness Ratio | | | |
| Area | | | |
| Max. Cross-Sectional | | 907.92 $ft^2$ | 0.204 $ft^2$ |
| Planform | | — | — |
| Wetted | | — | — |
| Base | high wing | 866.67 $ft^2$ | 0.195 $ft^2$ |
| | Low wing | 893.21 $ft^2$ | 0.201 $ft^2$ |

TABLE IV.

MODEL COMPONENT: BODY - B2

GENERAL DESCRIPTION: Baseline MDAC boattail body 256-14

DRAWING NUMBER: NSRDC A152011

| DIMENSIONS: | | FULL-SCALE | MODEL SCALE |
|---|---|---|---|
| Length | | 204.08 ft | 3.06 ft |
| Max. Width | | 34 ft | 0.51 ft |
| Max. Depth | | 34 ft | 0.51 ft |
| Fineness Ratio | | 6 | 6 |
| Area | | | |
| Max. Cross-Sectional | | 907.92 $ft^2$ | 0.204 $ft^2$ |
| Planform | | — | — |
| Wetted | | — | — |
| Base : | high wing | 866.67 $ft^2$ | 0.195 $ft^2$ |
| | Low wing | 893.21 $ft^2$ | 0.201 $ft^2$ |

TABLE V.

MODEL COMPONENT: W1

GENERAL DESCRIPTION: Baseline booster wing 256-14

DRAWING NUMBER: NSRDC A152024-1

| DIMENSIONS: | FULL-SCALE | MODEL SCALE |
|---|---|---|
| **TOTAL DATA** | | |
| Area | | |
| Planform | 6020 ft² | 1.355 ft² |
| Wetted | | |
| Span (equivalent) | 120.67 ft. | 1.81 ft |
| Aspect Ratio | 2.42 | 2.42 |
| Rate of Taper | | |
| Taper Ratio | .547 | .547 |
| Diehedral Angle, degrees | 7°40', 15° | 7°40', 15° |
| Incidence Angle, degrees | 0°, 3° | 0°, 3° |
| Aerodynamic Twist, degrees | | |
| Toe-In Angle | 0° | 0° |
| Cant Angle | | |
| Sweep Back Angles, degrees | | |
| Leading Edge | 40° | 40° |
| Trailing Edge | 19°31' | 19°31' |
| 0.25 Element Line | | |
| Chords: | | |
| Root (Wing Sta. 0.0) | 64.55 ft | .969 ft |
| Tip, (equivalent) | 35.4 ft | .53 ft |
| MAC | | |
| Fus. Sta. of .25 MAC | | |
| W.P. of .25 MAC | | |
| B.L. of .25 MAC | | |
| Airfoil Section | | |
| Root | 64A010 | 64A010 |
| Tip | 64A010 | 64A010 |
| **EXPOSED DATA** | | |
| Area | 3960 ft² | .891 ft² |
| Span, (equivalent) | 86.8 ft | 1.30 ft. |
| Aspect Ratio | 1.89 | 1.29 |
| Taper Ratio | .627 | .627 |
| Chords | | |
| Root | 56.4 ft | .845 ft |
| Tip | 35.4 | .53 ft |
| MAC | | |
| Fus. Sta. of .25 MAC | | |
| W.P. of .25 MAC | | |
| B.L. of .25 MAC | | |



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TABLE VI.

MODEL COMPONENT: W2

GENERAL DESCRIPTION: Alternate high aspect ratio swept wing

DRAWING NUMBER: NSRDC A-15 2024-5

| DIMENSIONS: | FULL-SCALE | MODEL SCALE |
|---|---|---|
| **TOTAL DATA** | | |
| Area | | |
| Planform | 5100 ft² | 1.148 ft² |
| Wetted | | |
| Span (equivalent) | 152.5 ft | 229 ft |
| Aspect Ratio | .455 | .455 |
| Rate of Taper | | |
| Taper Ratio | | |
| Diehedral Angle, degrees | 7°10', 15° | 7°10', 15° |
| Incidence Angle, degrees | 0°, 3° | 0°, 3° |
| Aerodynamic Twist, degrees | 0 | 0 |
| Toe-In Angle | | |
| Cant Angle | | |
| Sweep Back Angles, degrees | | |
| Leading Edge | 40° | 40° |
| Trailing Edge | 28.5° | 28.5° |
| 0.25 Element Line | | |
| Chords: | | |
| Root (Wing Sta. 0.0) | 45.9 ft | 0.689 ft |
| Tip, (equivalent) | 20.9 ft | 0.314 ft |
| MAC | | |
| Fus. Sta. of .25 MAC | | |
| W.P. of .25 MAC | | |
| B.L. of .25 MAC | | |
| Airfoil Section | | |
| Root | 64A010 | 64A010 |
| Tip | 64A010 | 64A010 |
| **EXPOSED DATA** | | |
| Area | 3500 ft² | 0.733 ft² |
| Span, (equivalent) | 118.2 ft | 1.775 ft |
| Aspect Ratio | 4 | 4 |
| Taper Ratio | .547 | .547 |
| Chords | | |
| Root | 38.2 ft | 0.574 ft |
| Tip | 20.9 ft | 0.314 ft |
| MAC | | |
| Fus. Sta. of .25 MAC | | |
| W.P. of .25 MAC | | |
| B.L. of .25 MAC | | |

-02

TABLE VII. V II

MODEL COMPONENT: V I

GENERAL DESCRIPTION: Booster wing tip vertical fin

(Dimensions given are for each tip)

DRAWING NUMBER: NSRDC A152027-1,4

| DIMENSIONS: | FULL-SCALE | MODEL SCALE |
|---|---|---|
| **TOTAL DATA** | | |
| Area | | |
| Planform | 1010 ft² | .226 ft² |
| Wetted | — | — |
| Semi-Span (equivalent) | 38.30 ft | .592 ft |
| Aspect Ratio | 1.5 | 1.5 |
| Rate of Taper | — | — |
| Taper Ratio | .467 | .467 |
| Diehedral Angle, degrees | 29° | 29° |
| Incidence Angle, degrees | 3° | 3° |
| Aerodynamic Twist, degrees | 0 | 0 |
| Toe-In Angle | 0 | 0 |
| Cant Angle | 0 | 0 |
| Sweep Back Angles, degrees | | |
| Leading Edge | 40° | 40° |
| Trailing Edge | 19°31' | 19°31' |
| 0.25 Element Line | — | — |
| Chords: | | |
| Root (Wing Sta. 0.0) | 35.35 ft | .530 ft |
| Tip, (equivalent) | 16.50 ft | .297 ft |
| MAC | — | — |
| Fus. Sta. of .25 MAC | — | — |
| W.P. of .25 MAC | — | — |
| B.L. of .25 MAC | — | — |
| Airfoil Section | | |
| Root | 64A010 | 64A010 |
| Tip | 64A009 | 64A009 |
| **EXPOSED DATA** | | |
| Area | — | — |
| Span, (equivalent) | — | — |
| Aspect Ratio | — | — |
| Taper Ratio | — | — |
| Chords | | |
| Root | — | — |
| Tip | — | — |
| MAC | — | — |
| Fus. Sta. of .25 MAC | — | — |
| W.P. of .25 MAC | — | — |
| B.L. of .25 MAC | — | — |



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TABLE VIII.

MODEL COMPONENT: V2

GENERAL DESCRIPTION: Parallel wing tip extensions

(Dimensions are for each tip)

DRAWING NUMBER: NSRDC A 152030-1

| DIMENSIONS: | FULL-SCALE | MODEL SCALE |
|---|---|---|
| **TOTAL DATA** | | |
| Area | | |
| Planform | 671 ft² | 0.15 ft² |
| Wetted | | |
| Span (equivalent) | 21.9 ft | .329 ft |
| Aspect Ratio | 0.72 | 0.72 |
| Rate of Taper | | |
| Taper Ratio | 0.70 | 0.70 |
| Diehedral Angle, degrees | 7°40' 15° | 7°40' 15° |
| Incidence Angle, degrees | 0° 3° | 0° 3° |
| Aerodynamic Twist, degrees | | |
| Toe-In Angle | | |
| Cant Angle | | |
| Sweep Back Angles, degrees | | |
| Leading Edge | 40° | 40° |
| Trailing Edge | 19°31' | 19°31' |
| 0.25 Element Line | | |
| Chords: | | |
| Root (Wing Sta. 0.0) | 35.9 ft | .538 ft |
| Tip, (equivalent) | 25.2 ft. | .378 ft |
| MAC | | |
| Fus. Sta. of .25 MAC | | |
| W.P. of .25 MAC | | |
| B.L. of .25 MAC | | |
| Airfoil Section | | |
| Root | 64A010 | 64A010 |
| Tip | 64A010 | 64A010 |
| **EXPOSED DATA** | | |
| Area | | |
| Span, (equivalent) | | |
| Aspect Ratio | | |
| Taper Ratio | | |
| Chords | | |
| Root | | |
| Tip | | |
| MAC | | |
| Fus. Sta. of .25 MAC | | |
| W.P. of .25 MAC | | |
| B.L. of .25 MAC | | |

TABLE IX.

MODEL COMPONENT: D1

GENERAL DESCRIPTION: Booster Large Dorsal Fin

DRAWING NUMBER: NSRDC A152016-1

| DIMENSIONS: | FULL-SCALE | MODEL SCALE |
|---|---|---|
| Area | 1926 $ft^2$ | 0.149 $ft^2$ |
| Span (equivalent) | 55.4 ft | .831 ft |
| Inb'd equivalent chord | 48.8 ft | .731 ft |
| Outb'd equivalent chord | 22.2 ft | .333 ft |
| Ratio movable surface chord/ total surface chord | | |
| At Inb'd equiv. chord | .30 | .30 |
| At Outb'd equiv. chord | .30 | .30 |
| Sweep Back Angles, degrees | | |
| Leading Edge | 55° | 55° |
| Tailing Edge | 43.5° | 43.5° |
| Hingeline | — | — |
| Area Moment (Normal to hinge line) | — | — |



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TABLE X.

MODEL COMPONENT: D2

GENERAL DESCRIPTION: Boeing small Dorsal Fin

DRAWING NUMBER: —

| DIMENSIONS: | FULL-SCALE | MODEL SCALE |
|---|---|---|
| Area | 1450 ft.$^2$ | .326 ft.$^2$ |
| Span (equivalent) | 36.1 ft. | .541 ft. |
| Inb'd equivalent chord | 48.8 ft. | .731 ft. |
| Outb'd equivalent chord | 31.5 ft. | .473 ft. |
| Ratio movable surface chord/ total surface chord | | |
| At Inb'd equiv. chord | .30 | .30 |
| At Outb'd equiv. chord | .30 | .30 |
| Sweep Back Angles, degrees | | |
| Leading Edge | 55° | 65° |
| Tailing Edge | 43.5° | 43.5° |
| Hingeline | — | — |
| Area Moment (Normal to hinge line) | — | — |

TABLE XI.

MODEL COMPONENT: D3

GENERAL DESCRIPTION: Booster small Dorsal Fin

DRAWING NUMBER:

| DIMENSIONS: | FULL-SCALE | MODEL SCALE |
|---|---|---|
| Area | 1360 ft.² | .306 ft.² |
| Span (equivalent) | 33.3 ft. | .500 ft. |
| Inb'd equivalent chord | 48.8 ft. | .731 ft. |
| Outb'd equivalent chord | 32.8 ft. | .492 ft. |
| Ratio movable surface chord/ total surface chord | | |
| At Inb'd equiv. chord | .30 | .30 |
| At Outb'd equiv. chord | .30 | .30 |
| Sweep Back Angles, degrees | | |
| Leading Edge | 55° | 55° |
| Tailing Edge | 43.5° | 43.5° |
| Hingeline | — | — |
| Area Moment (Normal to hinge line) | — | — |

TABLE XII.

MODEL COMPONENT: C1

GENERAL DESCRIPTION: Body for Jet, canard

DRAWING NUMBER: NSRDC A152018-5

DIMENSIONS:

| | FULL-SCALE | MODEL SCALE |
|---|---|---|
| **TOTAL DATA** | | |
| Area | | |
| Planform | 2650 ft² | 0.596 ft² |
| Wetted | — | — |
| Span (equivalent) | 78.7 ft | 1.18 ft |
| Aspect Ratio | 2.34 | 2.34 |
| Rate of Taper | — | — |
| Taper Ratio | .124 | .124 |
| Diehedral Angle, degrees | 0 | 0 |
| Incidence Angle, degrees | 3° 15' | 3° 15' |
| Aerodynamic Twist, degrees | 0 | 0 |
| Toe-In Angle | — | — |
| Cant Angle | — | — |
| Sweep Back Angles, degrees | — | — |
| Leading Edge | 53°09' | 53°08' |
| Trailing Edge | 0 | 0 |
| 0.25 Element Line | — | — |
| Chords: | — | — |
| Root (Wing Sta. 0.0) | 59.8 ft | .897 ft |
| Tip, (equivalent) | 7.47 ft | .112 ft |
| MAC, inches | — | — |
| Fus. Sta. of .25 MAC | — | — |
| W.P. of .25 MAC | — | — |
| Airfoil Section | — | — |
| Root | 64A010 | 64A010 |
| Tip | 64A010 | 64A010 |
| **EXPOSED DATA** | | |
| Area | 1000 ft² | 0.225 ft² |
| Span, (equivalent) | 44.7 ft | 0.67 ft |
| Aspect Ratio | 2 | 2 |
| Taper Ratio | .2 | .2 |
| Chords | — | — |
| Root | 37.3 ft | 0.559 ft |
| Tip | 7.47 ft | .112 ft |
| MAC | — | — |
| Fus. Sta. of .25 MAC | — | — |
| W.P. of .25 MAC | — | — |

TABLE XIII.

MODEL COMPONENT: C2

GENERAL DESCRIPTION: Body - small canard

DRAWING NUMBER: NSRDC A152018-5

| DIMENSIONS: | FULL-SCALE | MODEL SCALE |
|---|---|---|
| **TOTAL DATA** | | |
| Area | | |
| Planform | 2235 ft² | 0.503 ft² |
| Wetted | | |
| Span (equivalent) | 72.6 ft | 1.09 ft |
| Aspect Ratio | 2.36 | 2.36 |
| Rate of Taper | | |
| Taper Ratio | .118 | .118 |
| Diehedral Angle, degrees | 0 | 0 |
| Incidence Angle, degrees | 3° 15' | 3° 15' |
| Aerodynamic Twist, degrees | 0 | 0 |
| Toe-In Angle | | |
| Cant Angle | | |
| Sweep Back Angles, degrees | | |
| Leading Edge | 53° | 53° |
| Trailing Edge | 0 | 0 |
| 0.25 Element Line | | |
| Chords: | | |
| Root (Wing Sta. 0.0) | 55. ft | .825 ft |
| Tip, (equivalent) | 6.47 ft | .097 ft |
| MAC, inches | | |
| Fus. Sta. of .25 MAC | | |
| W.P. of .25 MAC | | |
| Airfoil Section | | |
| Root | 64A010 | 64A010 |
| Tip | 64A010 | 64A010 |
| **EXPOSED DATA** | | |
| Area | 750 ft² | 0.169 ft² |
| Span, (equivalent) | 38.3 ft | 0.571 ft |
| Aspect Ratio | 2 | 2 |
| Taper Ratio | 0.2 | 0.2 |
| Chords | | |
| Root | 32.2 ft | 0.484 ft |
| Tip | 6.46 ft | .097 ft |
| MAC | | |
| Fus. Sta. of .25 MAC | | |
| W.P. of .25 MAC | | |

TABLE XIV.

MODEL COMPONENT: C 3

GENERAL DESCRIPTION: C 2 with F1 portion removed.

DRAWING NUMBER:

| DIMENSIONS: | FULL-SCALE | MODEL SCALE |
|---|---|---|
| **TOTAL DATA** | | |
| Area | | |
| Planform | 1788 ft² | .4023 ft² |
| Wetted | — | — |
| Span (equivalent) | 76.2 ft | 1.09 ft |
| Aspect Ratio | 3.25 | 3.25 |
| Rate of Taper | — | — |
| Taper Ratio | .118 | .118 |
| Diehedral Angle, degrees | 0° | 0° |
| Incidence Angle, degrees | 3° | 3° |
| Aerodynamic Twist, degrees | 0° | 0° |
| Toe-In Angle | — | — |
| Cant Angle | — | — |
| Sweep Back Angles, degrees | | |
| Leading Edge | 53° | 53° |
| Trailing Edge | 14°55' | 14°55' |
| 0.25 Element Line | — | — |
| Chords: | | |
| Root (Wing Sta. 0.0) | 44.0 ft. | .66 ft. |
| Tip, (equivalent) | 5.17 ft. | .0776 ft. |
| MAC, inches | — | — |
| Fus. Sta. of .25 MAC | — | — |
| W.P. of .25 MAC | — | — |
| Airfoil Section | | |
| Root | 64A010 with last 20% removed. | |
| Tip | 64A010 with last 20% removed. | |
| **EXPOSED DATA** | | |
| Area | 600 ft² | .135 ft.³ |
| Span, (equivalent) | 38.8 ft | .581 ft. |
| Aspect Ratio | 2.5 | 2.5 |
| Taper Ratio | .20 | .20 |
| Chords | | |
| Root | 25.76 ft. | .386 ft. |
| Tip | 5.17 ft. | .0776 ft. |
| MAC | — | — |
| Fus. Sta. of .25 MAC | — | — |
| W.P. of .25 MAC | — | — |

TABLE XV.

MODEL COMPONENT: F1 FOR CANARD C1

GENERAL DESCRIPTION: Root in canard trailing edge control (20% chord - exposed area)

DRAWING NUMBER: NSRDC A1520178

| DIMENSIONS: | FULL-SCALE | MODEL SCALE |
|---|---|---|
| Area | 200 $ft^2$ | 0.045 $ft^2$ |
| Span (equivalent) | 44.7 ft | 0.67 ft |
| Inb'd equivalent chord | 7.46 ft | 0.112 ft |
| Outb'd equivalent chord | 1.495 ft | 0.0224 ft |
| Ratio movable surface chord/ total surface chord | | |
| At Inb'd equiv. chord | 0.2 | 0.2 |
| At Outb'd equiv. chord | 0.2 | 0.2 |
| Sweep Back Angles, degrees | | |
| Leading Edge | 14°56' | 14°56' |
| Tailing Edge | 0 | 0 |
| Hingeline | — | — |
| Area Moment (Normal to hinge line) | — | — |



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TABLE XVI.

MODEL COMPONENT: F1 FOR CANARD C2

GENERAL DESCRIPTION: Brooks control trailing edge flap (20% chord - exposed area)

DRAWING NUMBER:

DIMENSIONS:

| | FULL-SCALE | MODEL SCALE |
|---|---|---|
| Area | 150 ft² | 0.0338 ft² |
| Span (equivalent) | 38.8 ft | 0581 ft |
| Inb'd equivalent chord | 6.45 ft | 0.0968 ft |
| Outb'd equivalent chord | 1.295 ft | 0.0194 ft |
| Ratio movable surface chord/ total surface chord | | |
| At Inb'd equiv. chord | 0.2 | 0.2 |
| At Outb'd equiv. chord | 0.2 | 0.2 |
| Sweep Back Angles, degrees | | |
| Leading Edge | 14°55' | 14°55' |
| Tailing Edge | 0 | 0 |
| Hingeline | — | — |
| Area Moment (Normal to hinge line) | — | — |

TABLE XVII.

MODEL COMPONENT: F2 WITH CANARD C1

GENERAL DESCRIPTION: Booster canard trailing edge control (40% chord)

DRAWING NUMBER: NSRDC A152017,18

| DIMENSIONS: | FULL-SCALE | MODEL SCALE |
|---|---|---|
| Area | 400 $ft^2$ | .09 $ft^2$ |
| Span (equivalent) | 44.7 ft | 0.67 ft |
| Inb'd equivalent chord | 14.92 ft | 0.224 ft |
| Outb'd equivalent chord | 2.99 ft | 0.0449 ft |
| Ratio movable surface chord/ total surface chord | | |
| At Inb'd equiv. chord | 0.4 | 0.4 |
| At Outb'd equiv. chord | 0.4 | 0.4 |
| Sweep Back Angles, degrees | | |
| Leading Edge | 28°04' | 28°04' |
| Tailing Edge | 0 | 0 |
| Hingeline | — | — |
| Area Moment (Normal to hinge line) | — | — |

TABLE XVIII. XVIII

MODEL COMPONENT: F2 WITH CANARD C2

GENERAL DESCRIPTION: _____

DRAWING NUMBER: _____

| DIMENSIONS: | FULL-SCALE | MODEL SCALE |
|---|---|---|
| Area | 300 ft² | 0.0676 ft² |
| Span (equivalent) | 38.8 ft | 0.531 ft |
| Inb'd equivalent chord | 12.9 ft | 0.1936 ft |
| Outb'd equivalent chord | 2.59 ft | 0.0388 ft |
| Ratio movable surface chord/ total surface chord | | |
| At Inb'd equiv. chord | 0.4 | 0.4 |
| At Outb'd equiv. chord | 0.4 | 0.4 |
| Sweep Back Angles, degrees | | |
| Leading Edge | 28° | 28° |
| Tailing Edge | 0 | 0 |
| Hingeline | — | — |
| Area Moment (Normal to hinge line) | — | — |

TABLE XIX. XII

MODEL COMPONENT: F 3

GENERAL DESCRIPTION: Canard Flap. Consists of F2 for C2 with F1 portion removed.

DRAWING NUMBER:

| DIMENSIONS: | FULL-SCALE | MODEL SCALE |
|---|---|---|
| Area | 150 ft.$^2$ | 0.0338 ft.$^2$ |
| Span (equivalent) | 38.8 ft. | 0.581 ft. |
| Inb'd equivalent chord | 6.45 ft | 0.0968 ft. |
| Outb'd equivalent chord | 2.54 ft. | 0.0194 ft. |
| Ratio movable surface chord/ total surface chord | | |
| At Inb'd equiv. chord | 0.333 | 0.333 |
| At Outb'd equiv. chord | 0.333 | 0.333 |
| Sweep Back Angles, degrees | | |
| Leading Edge | 28° | 28° |
| Tailing Edge | 14° 55' | 14° 55 |
| Hingeline | — | — |
| Area Moment (Normal to hinge line) | — | — |

## NOMENCLATURE

(General)

| SYMBOL | SADSAC SYMBOL | DEFINITION |
|---|---|---|
| $\alpha$ | ALPHA | angle of attack, angle between the projection of the wind $X_w$-axis on the body X, Z-plane and the body X-axis; degrees |
| $\beta$ | BETA | sideslip angle, angle between the wind $X_w$-axis and the projection of this axis on the body X-Z-plane; degrees |
| $\psi$ | PSI | yaw angle, angle of rotation about the body Z-axis, positive when the positive X-axis is rotated toward the positive Y-axis; degrees |
| $\phi$ | PHI | roll angle, angle of rotation about the body X-axis, positive when the positive Y-axis is rotated toward the positive Z-axis; degrees |
| $\rho$ | | air density; $K_g/m^3$, slugs/$ft^3$ |
| a | | speed of sound; m/sec, ft/sec |
| V | | speed of vehicle relative to surrounding atmosphere; m/sec, ft/sec |
| q | Q(PSI)<br>Q(PSF) | dynamic pressure; $1/2\rho V^2$, psi, psf |
| M | MACH | Mach number; V/a |
| RN/L | RN/L | Reynolds number per unit length; million/ft |
| p | | static pressure; psi |
| P | | total pressure; psi |
| $C_p$ | CP | pressure coefficient; $(p-p_\infty)/q$ |

## NOMENCLATURE (Continued)

### Reference & C. G. Definitions

| SYMBOL | SADSAC SYMBOL | DEFINITION |
|---|---|---|
| S | | wing area; $m^2$, $ft^2$ |
| $S_{ref}$ | SREF | reference area; $m^2$, $ft^2$ |
| $\bar{c}$ | | wing mean aerodynamic chord or reference chord; m, ft, in (see $\ell_{ref}$ or LREF) |
| $\ell_{ref}$ | LREF | reference length; m, ft, in.; (see $\bar{c}$) |
| $b_{ref}$ | BREF | wing span or reference span; m, ft, in |
| $A_b$ | | base area; $m^2$, $ft^2$, $in^2$ |
| c. g. | | center of gravity |
| MRP | MRP | abbreviation for moment reference point |
| | XMRP | abbreviation for moment reference point on X-axis |
| | YMRP | abbreviation for moment reference point on Y-axis |
| | ZMRP | abbreviation for moment reference point on Z-axis |

NOMENCLATURE (Continued)

Axis System General

| SYMBOL | DEFINITION |
|---|---|
| F | force; F, lbs |
| M | moment; M, in-lb |

| Subscript | Definition |
|---|---|
| N | normal force |
| A | axial force |
| L | lift force |
| D | drag force |
| Y | force or moment about the Y axis |
| Z | moment about the Z axis |
| X | moment about the X axis |
| s | stability axis system |
| w | wind axis system |
| ref | reference conditions |
| $\infty$ | free stream conditions |
| t | total conditions |
| b | base |

NOMENCLATURE (Continued)

Body Axis System

| SYMBOL | SADSAC SYMBOL | DEFINITION |
|---|---|---|
| $C_N$ | CN | normal force coefficient; $F_N/qS$ |
| $C_A$ | CA | axial force coefficient; $F_A/qS$ |
| $C_{A_f}$ | CAF | forebody axial force coefficient; $C_A - C_{A_b}$ |
| $C_m$ | CLM | pitching moment coefficient; $M_Y/qS\ \ell_{ref}$ |
| $C_y$ | CY | side force coefficient; $F_Y/qS$ |
| $C_n$ | CYN | yawing moment coefficient; $M_Z/qS\ b_{ref}$ |
| $C_\ell$ | CBL | rolling moment coefficient, $M_X/qS\ b_{ref}$ |

## NOMENCLATURE (Continued)

### Stability Axis System

| SYMBOL | SADSAC SYMBOL | DEFINITION |
|---|---|---|
| $C_L$ | CL | lift force coefficient; $F_L/qS$ |
| $C_D$ | CD | drag force coefficient; $F_D/qS$ |
| $C_{D_b}$ | CDB | base drag coefficient |
| $C_{D_f}$ | CDF | forebody drag coefficient; $C_D - C_{D_b}$ |
| $C_m$ | CLM | pitching moment coefficient; $M_{Y,s}/qS\ \ell_{ref}$ |
| $C_y$ | CY | side force coefficient; $F_Y/qS$ |
| $C_n$ | CLN | yawing moment coefficient; $M_{Z,s}/qS\ b_{ref}$ |
| $C_\ell$ | CSL | rolling moment coefficient; $M_{X,s}/qS\ b_{ref}$ |
| L/D | L/D | lift-to-drag ratio; $C_L/C_D$ |
| $L/D_f$ | L/DF | lift to forebody drag ratio; $C_L/C_{D_f}$ |

## NOMENCLATURE (Continued)

### Surface Definitions

| SYMBOL | SADSAC SYMBOL | DEFINITION |
|---|---|---|
| $i_t$ | HORIZT | horizontal tail incidence; positive when trailing edge down; degrees |
| $\delta$ | | symmetrical surface deflection angle; degrees; positive deflections are: |
| | AILRON | aileron - total aileron deflection; (left aileron - right aileron)/2 |
| | CANARD | canard - trailing edge down |
| | ELEVON | elevon - trailing edge down |
| | ELEVTR | elevator - trailing edge down |
| | FLAP | flap - trailing edge down |
| | RUDDER | rudder - trailing edge to the left |
| | SPOILR | spoiler - trailing edge down |
| | TAB | tab - trailing edge down with respect to control surface |
| $\delta$ | | antisymmetrical surface deflection angle, degrees; positive trailing edge down: |
| | AIL-L | left aileron - trailing edge down |
| | AIL-R | right aileron - trailing edge down |
| | ELVN-L | left elevon - trailing edge down |
| | ELVN-R | right elevon - trailing edge down |
| | SPLR-L | left spoiler - trailing edge down |
| | SPLR-R | right spoiler - trailing edge down |

| SURFACE SUBSCRIPTS | DEFINITION |
|---|---|
| a | aileron |
| b | base |
| c | canard |
| e | elevator or elevon |
| f | flap |
| r | rudder or ruddervator |
| s | spoiler |
| t | tail |



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## ADDITIONS TO NOMENCLATURE

| SYMBOL | SADSAC SYMBOL | DEFINITION |
|---|---|---|
| CNDPOS | CNDPOS | canard vertical position (1=high, 2=low) |
| WNGPOS | WNGPOS | wing vertical position (1=high, 2=low) |
| $i_w$ | INCIDW | wing incidence angle, positive when trailing edge down; deg. |
| $\Gamma_W$ | DIHDRL | wing dihedral angle; deg. |
| $i_c$ | INCIDC | canard incidence angle, positive when trailing edge down; deg. |
| $\Delta C_L$ | DCL | incremental lift coefficient, algebraic difference of two runs. |
| $\Delta C_D$ | DCD | incremental drag coefficient, algebraic difference of two runs. |
| $\Delta C_M$ | DCLM | incremental pitching moment coefficient, algebraic difference of two runs. |
| $\Delta L/D$ | DL/D | incremental lift drag ratio, algebraic difference of two runs. |
| $\Delta C_y$ | DCY | incremental side force coefficient, algebraic difference of two runs. |
| $\Delta C_n$ | DCYN | incremental yawing moment coefficient, algebraic difference of two runs. Body axis system. |
| $\Delta C_\ell$ | DCBL | incremental rolling moment coefficient, algebraic difference of two runs. Body axis system. |

## TABULATED DATA LISTING

A tabulated data listing, consisting of all aero data sets, both original and those created in arriving at the plotted material to be presented subsequently, is available as an addendum to this report. The tabular listing is made up in two sections:

(a) a brief summary list of all data sets containing the identifier, the descriptor, and the resident dependent variables.

(b) a full list of all data sets containing all resident or selected aerodynamic coefficients of the data sets as well as the above mentioned information.

The listing is currently sent on limited distribution to the following organizations:

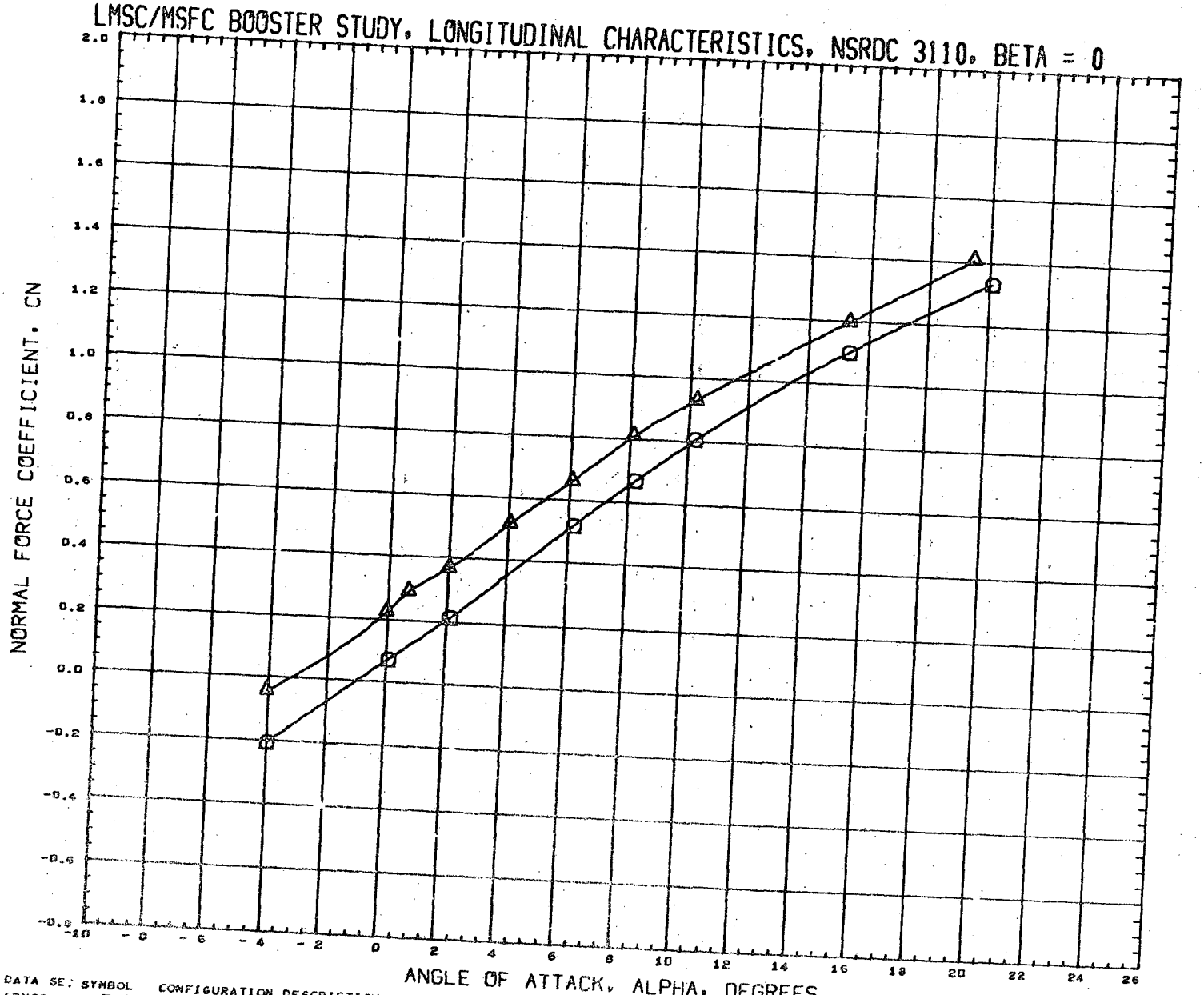
| | |
|---|---|
| NASA AMES | Mr. V. Stevens |
| NSRDC | Mr. D. Chadock |

If copies of this listing are desired, please contact the above or the cognizant SADSAC personnel who, for this data, is:

W. R. Morgan
Department 2780
Chrysler Corporation Space Division
New Orleans, La. 70129

(504) 255-2304

PLOTTED DATA

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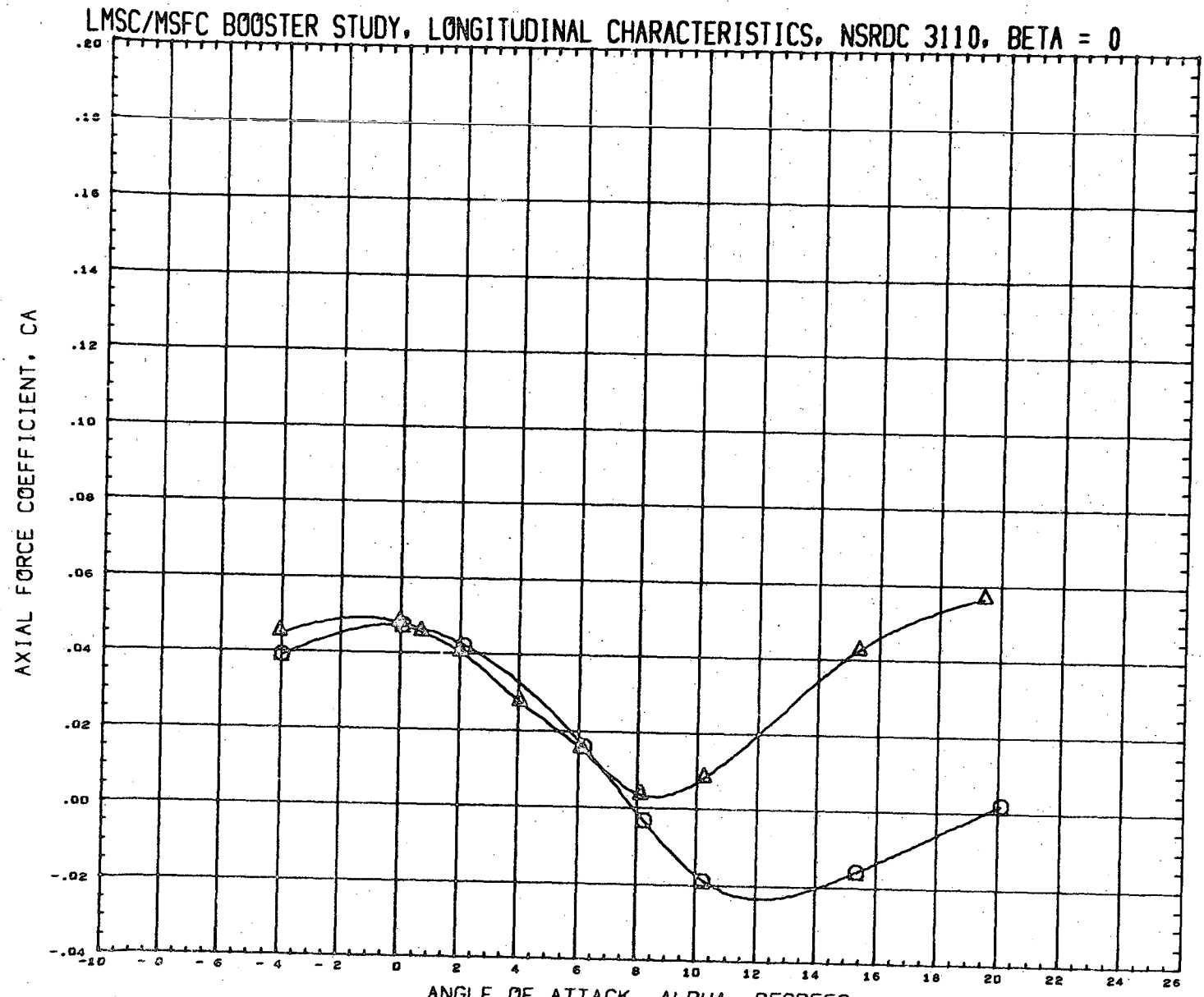


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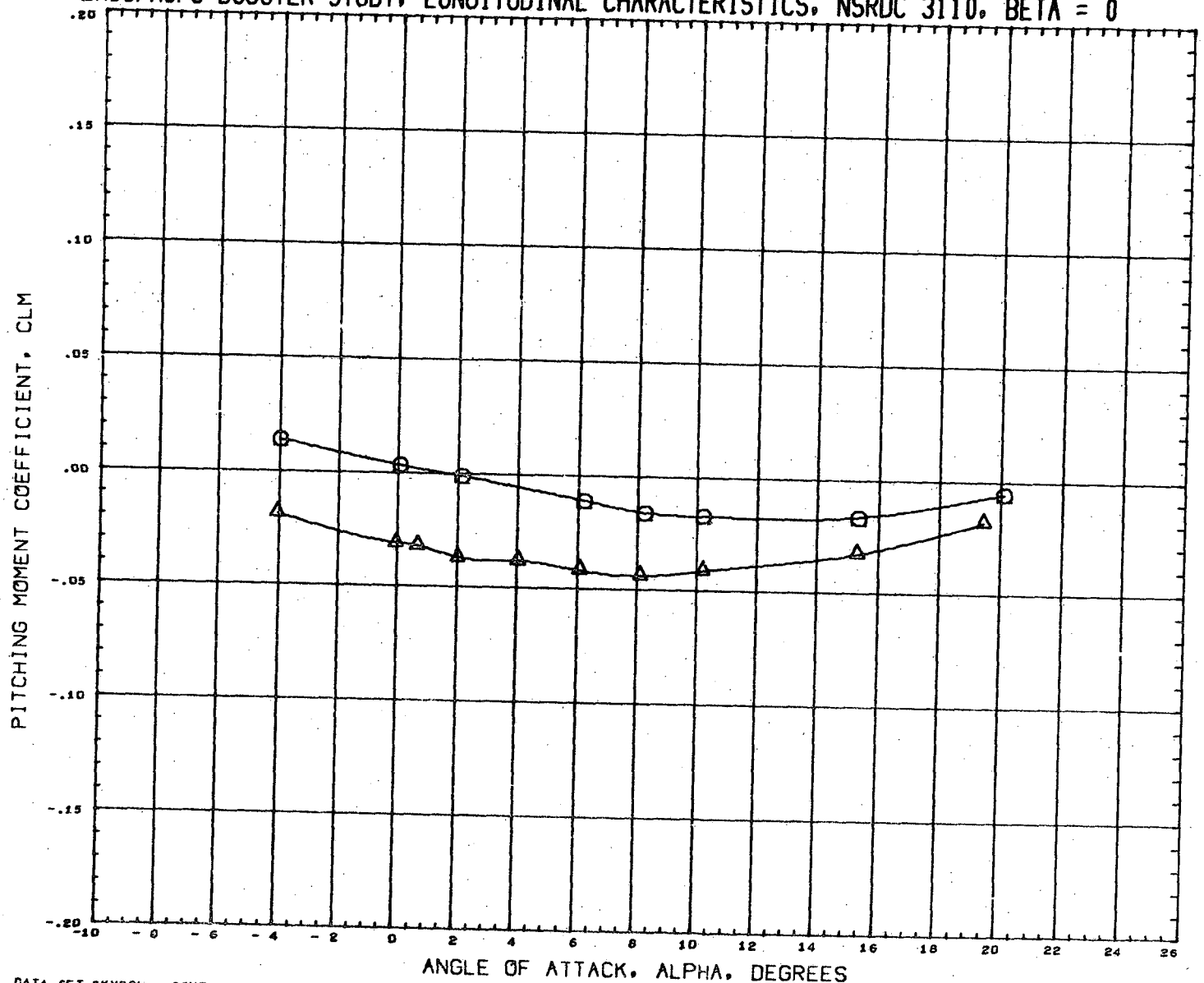


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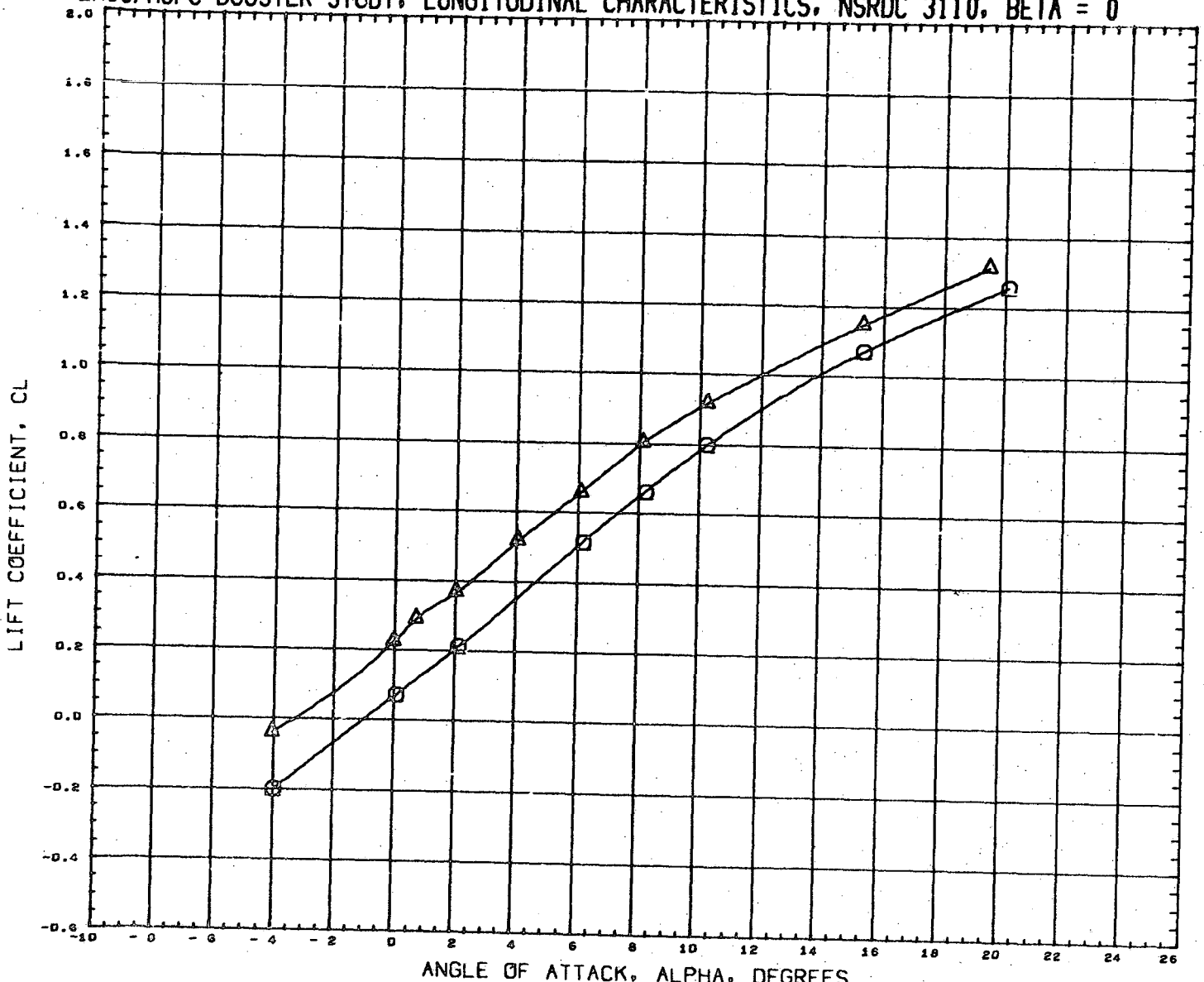


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MACH 0.381

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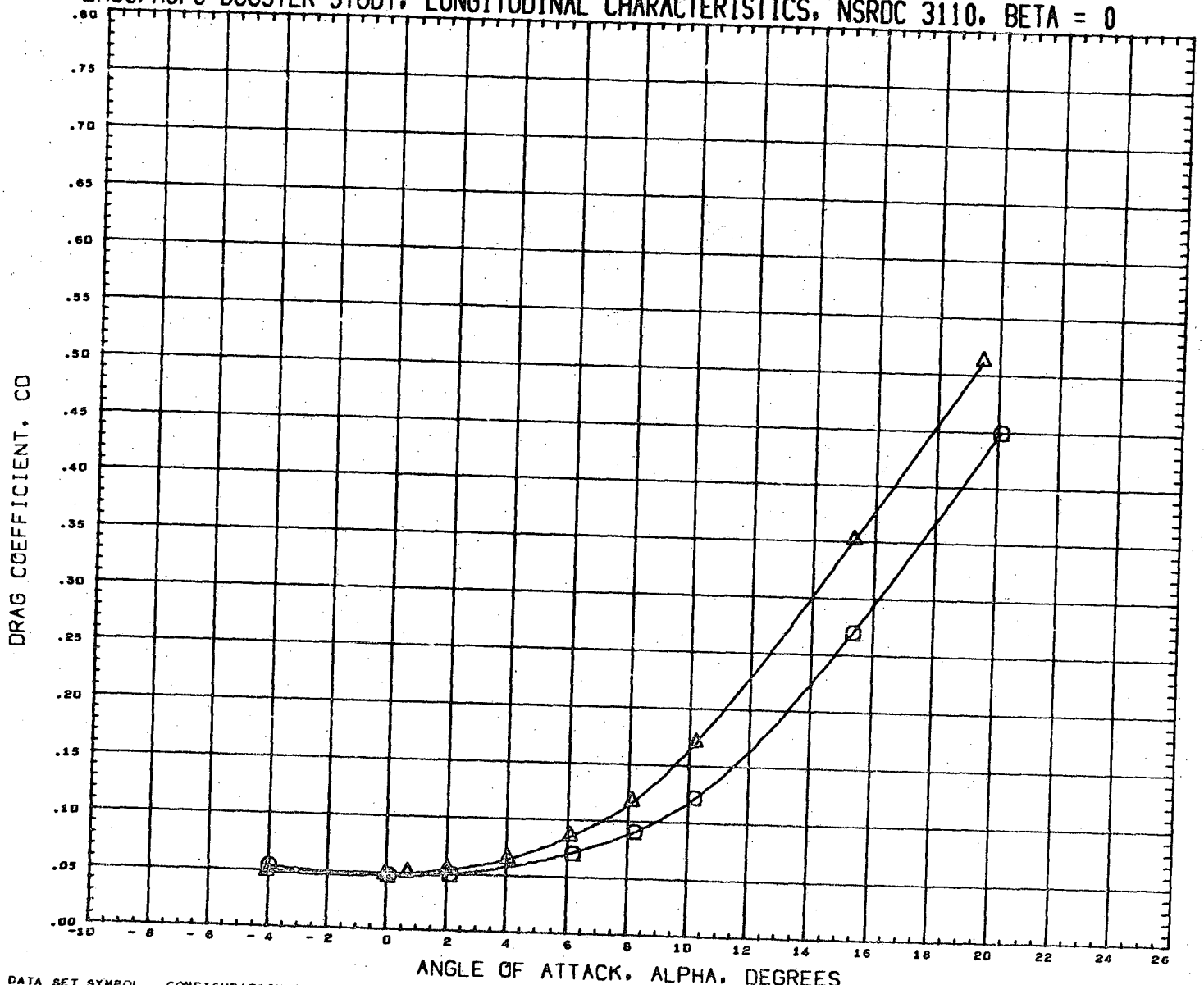


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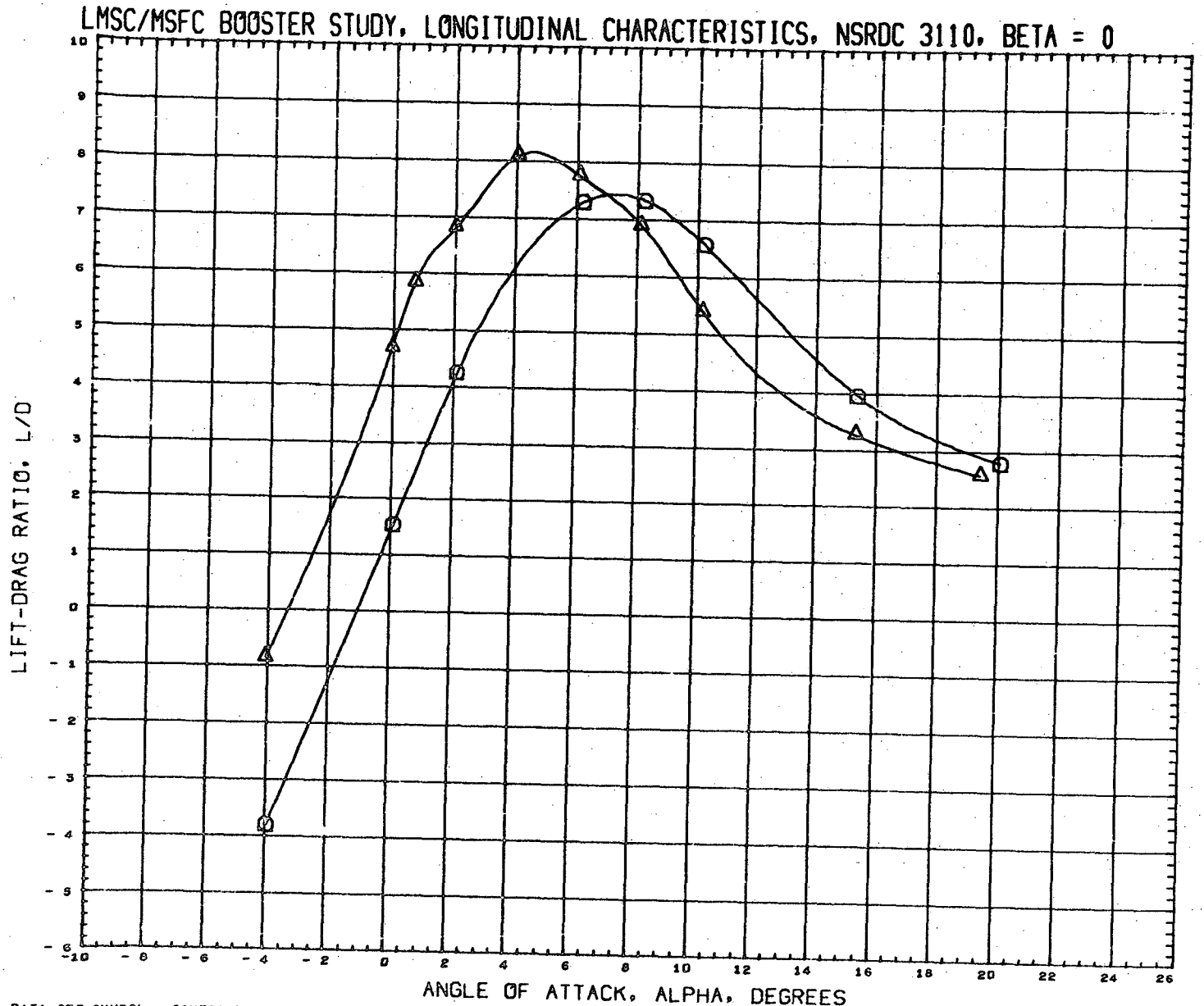


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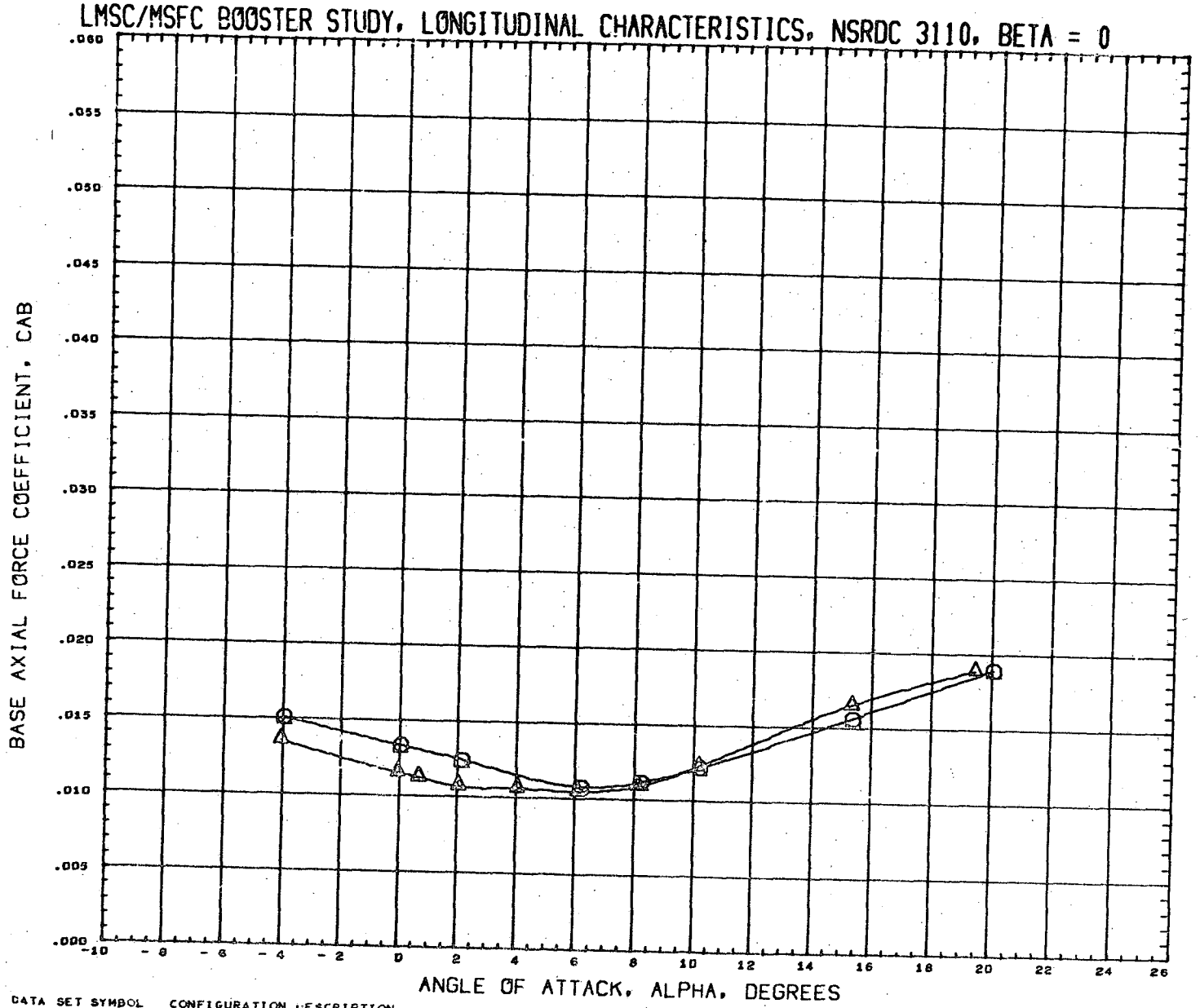


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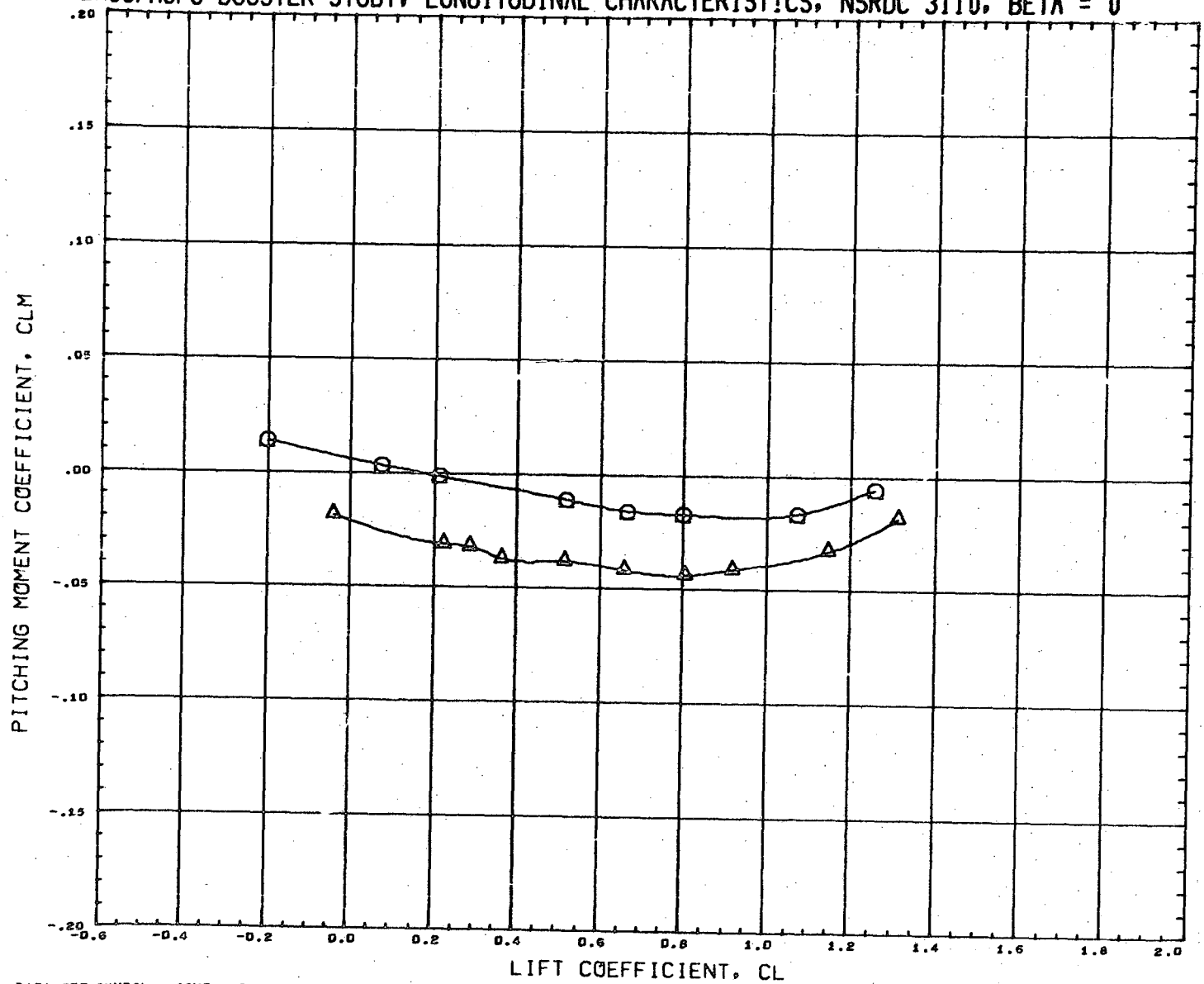


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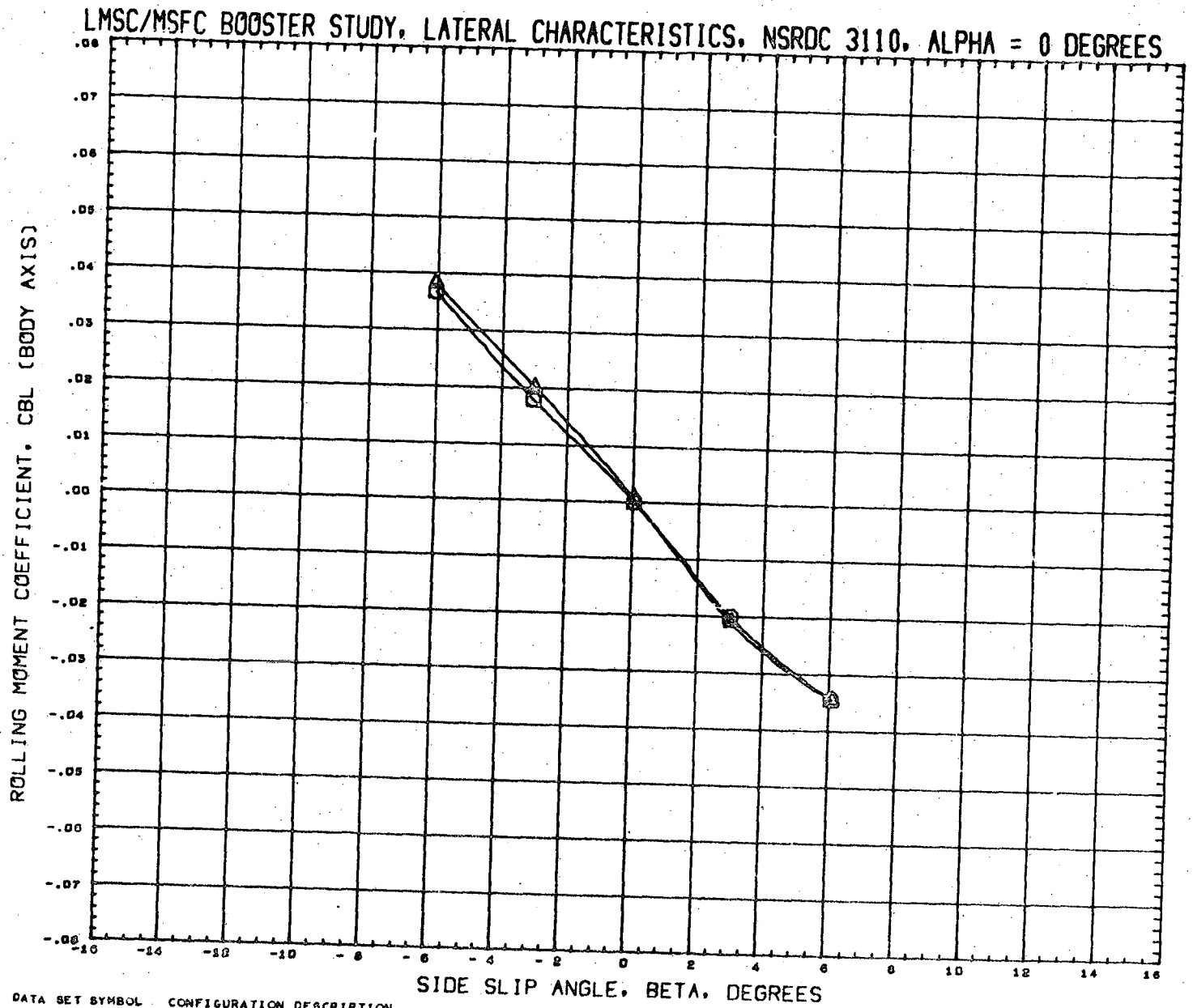
| SCALE | 1.5000 | PERCNT |

MACH 0.381

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| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.0000 | PERCNT |

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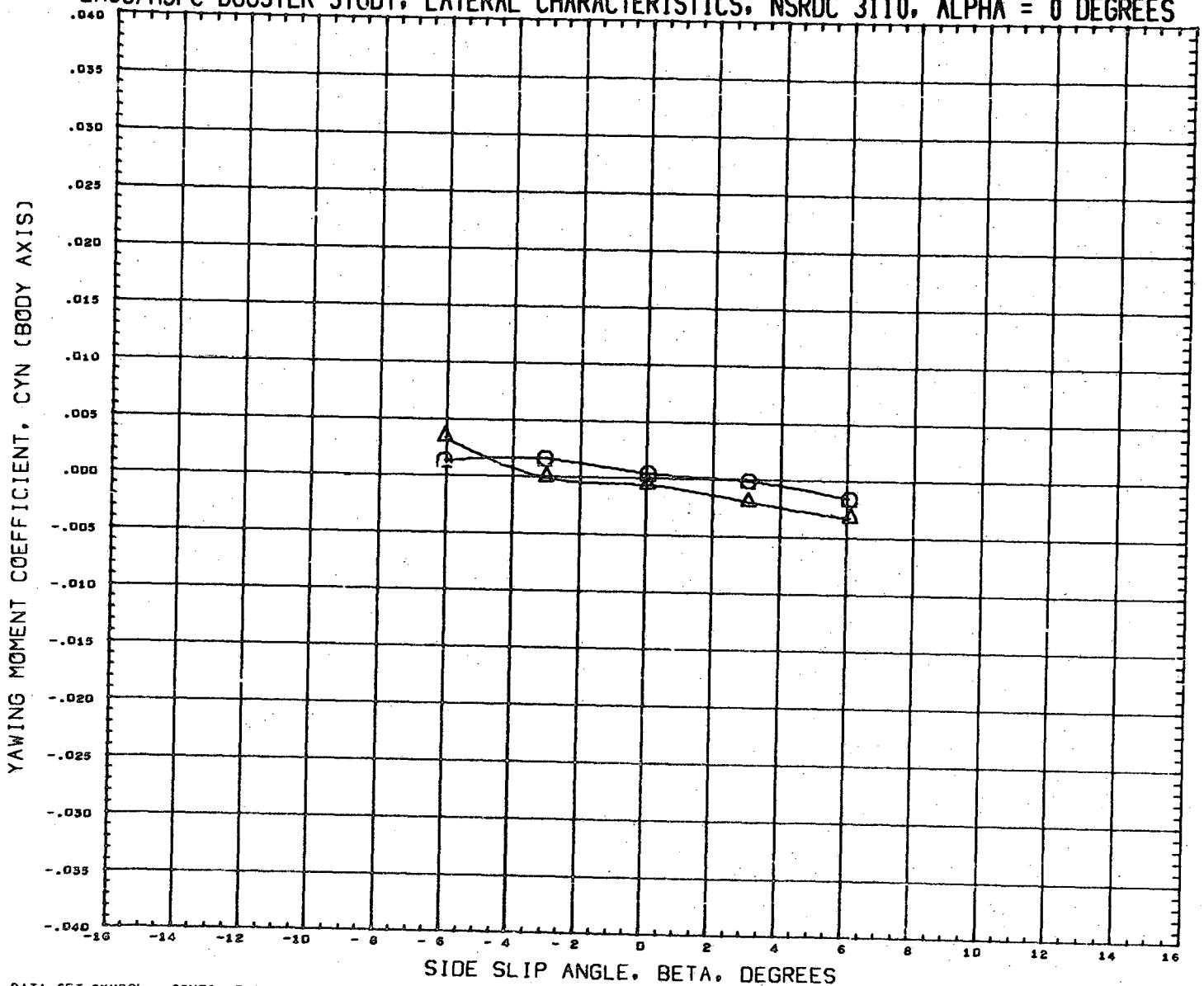


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MACH 0.381

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| BREF | 41.4360 | INCHES |
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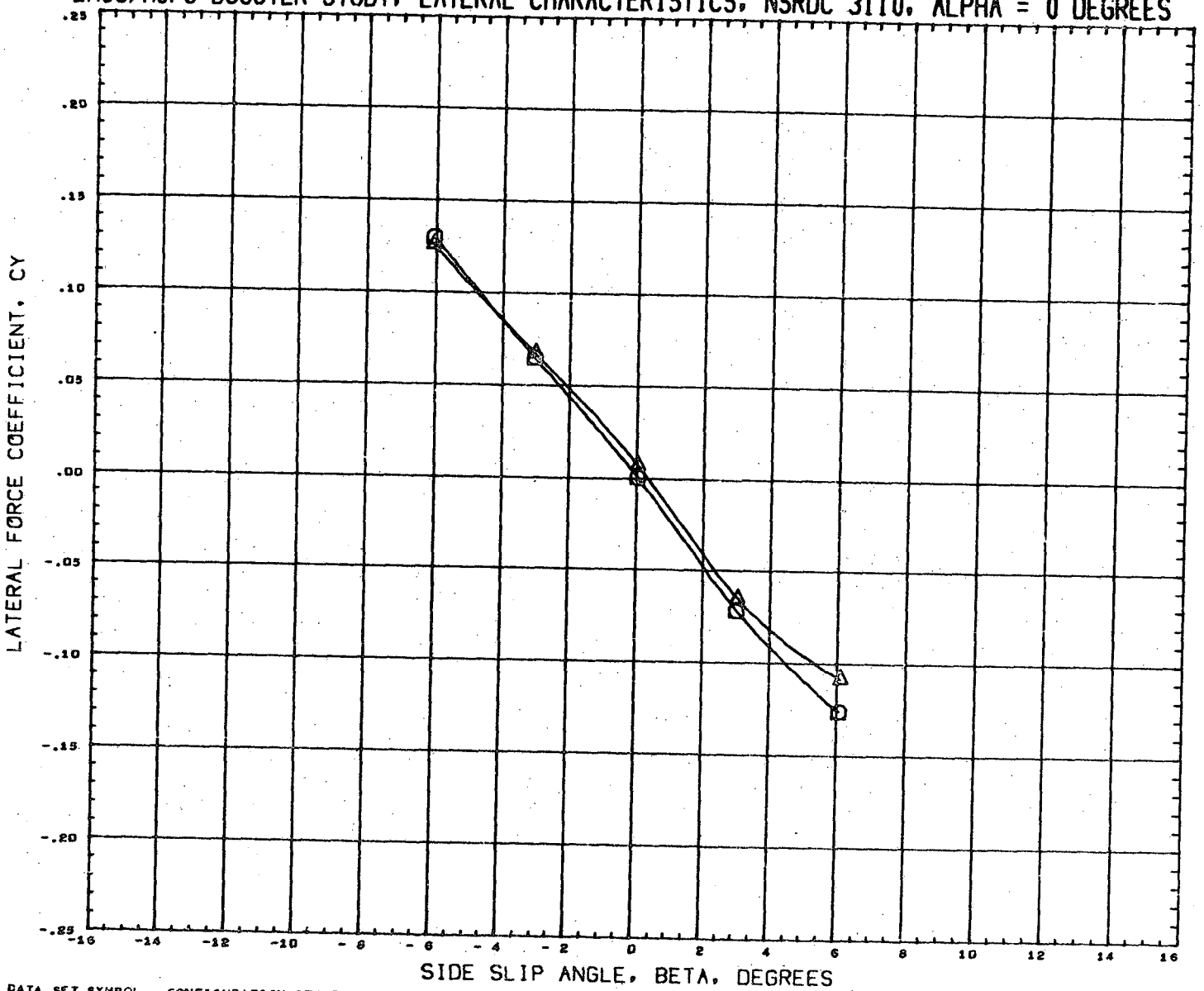
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

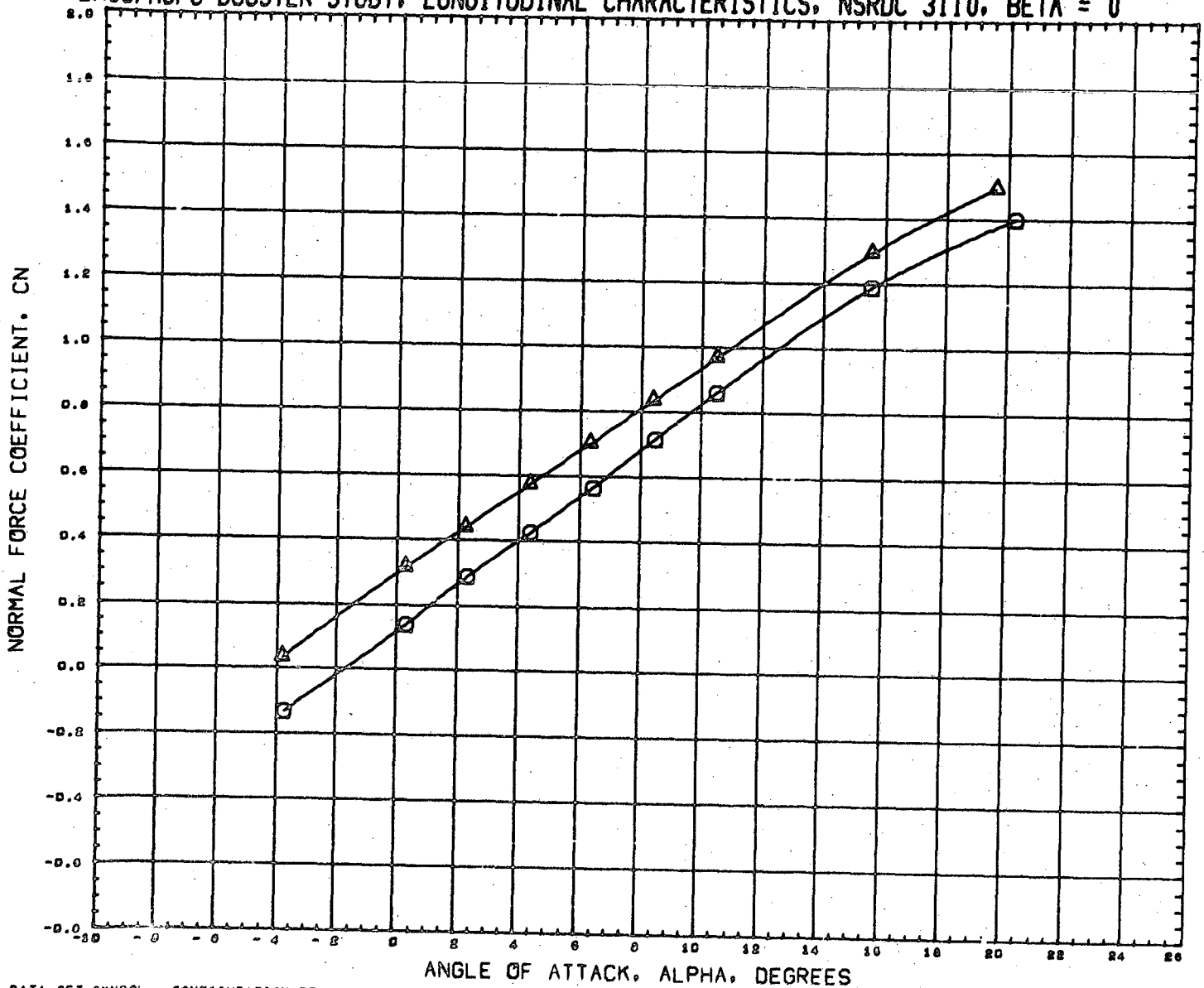



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2002) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 1.000 | 0.000 | 1.000 |
| (RN2034) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 1.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY. LONGITUDINAL CHARACTERISTICS. NSRDC 3110. BETA = 0



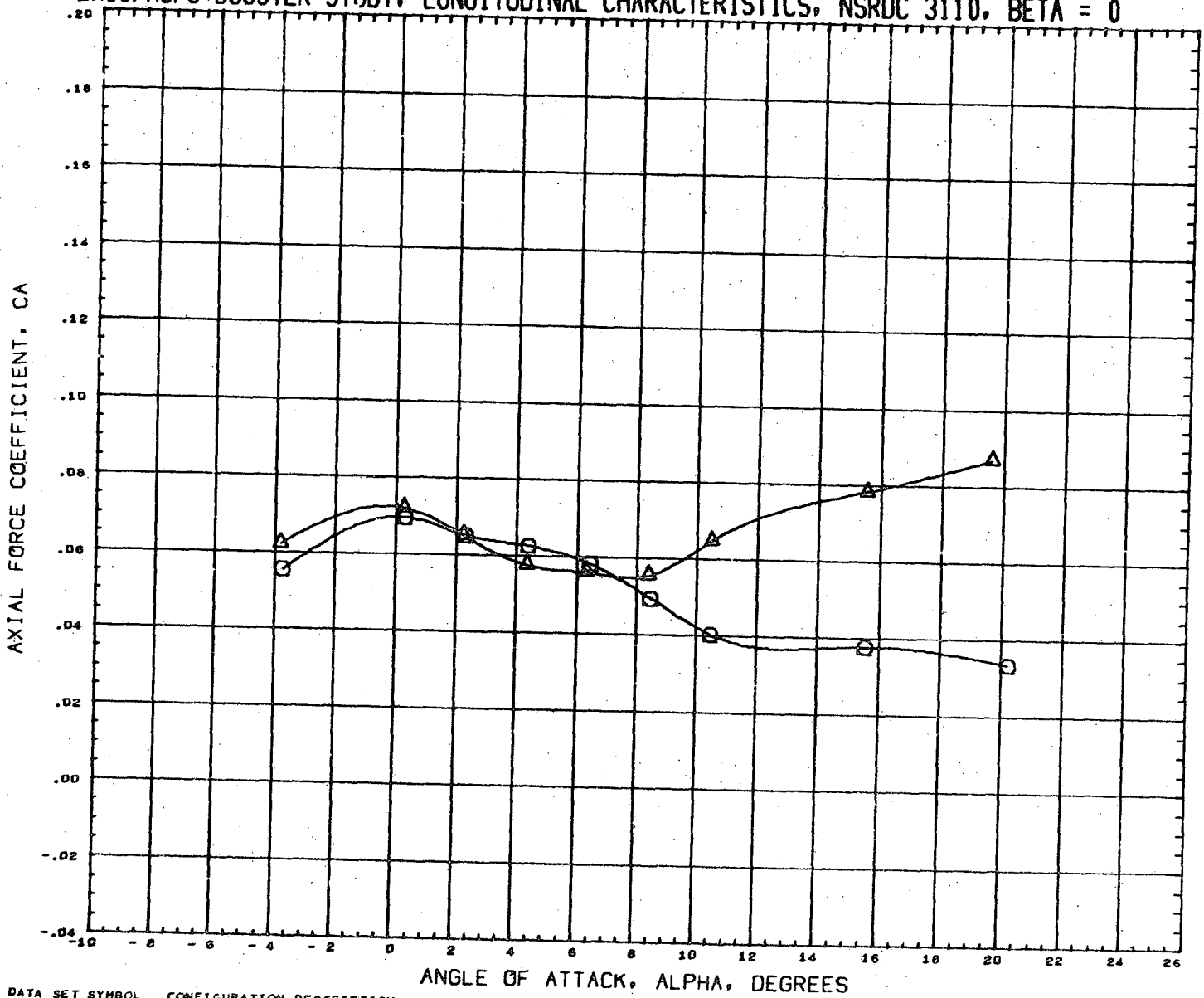

| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION |
|---|---|---|
| (RN2005) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 |
| (RN2037) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 |

| INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|
| 15.000 | 1.000 | 0.000 | 1.000 |
| 15.000 | 1.000 | 3.000 | 1.000 |

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3350 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

MACH 0.370

LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

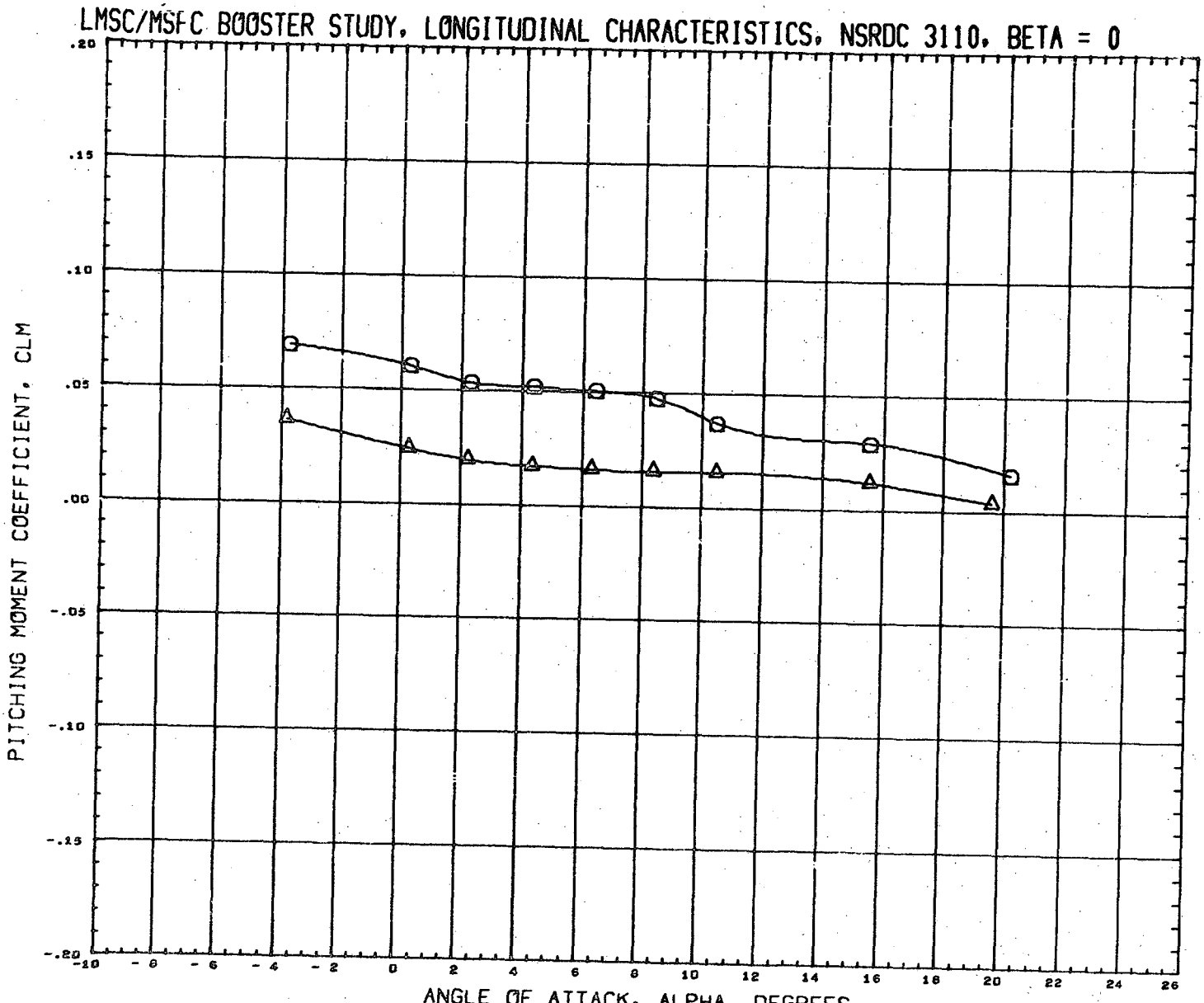



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION |
|---|---|---|
| (RN2005) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 |
| (RN2037) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 |

| INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|
| 15.000 | 1.000 | 0.000 | 1.000 |
| 15.000 | 1.000 | 3.000 | 1.000 |

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

MACH 0.379

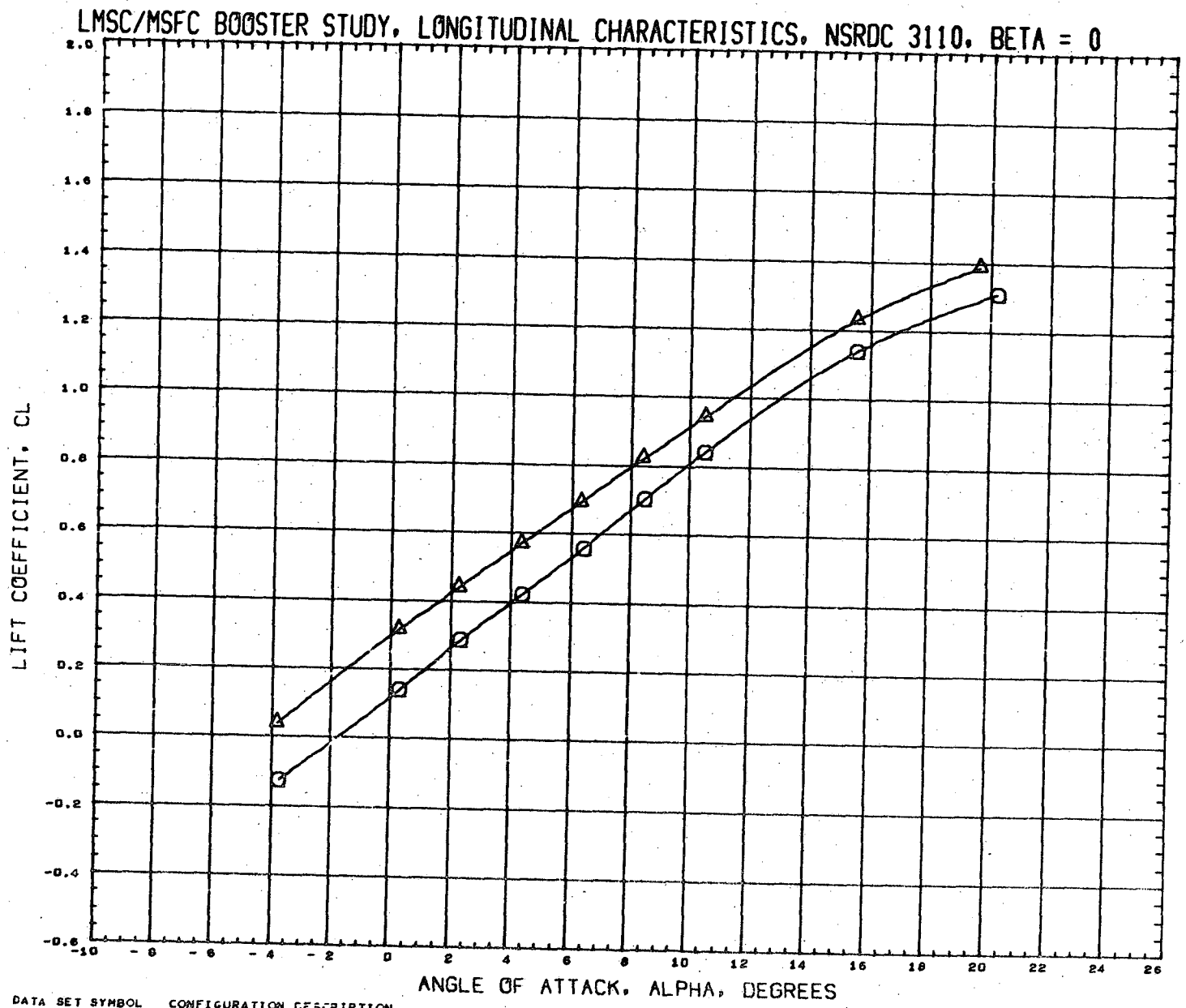



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION |
|---|---|
| (RN2005) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 |
| (RN2037) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 |

| INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|
| 15.000 | 1.000 | 0.000 | 1.000 |
| 15.000 | 1.000 | 3.000 | 1.000 |

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

MACH 0.379

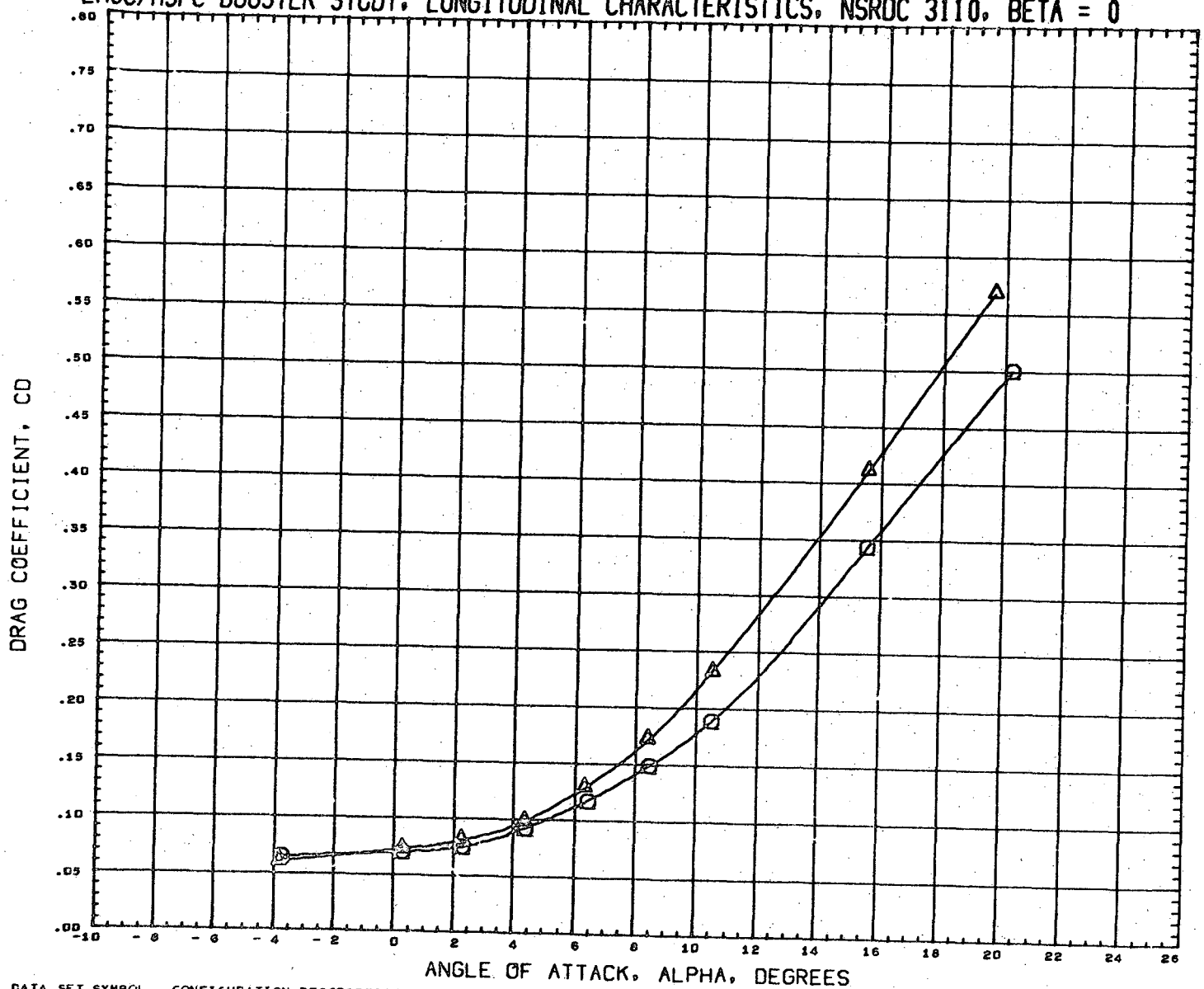



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2005) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 1.000 | 0.000 | 1.000 |
| (RN2037) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 1.000 | 3.000 | 1.000 |

MACH 0.379

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

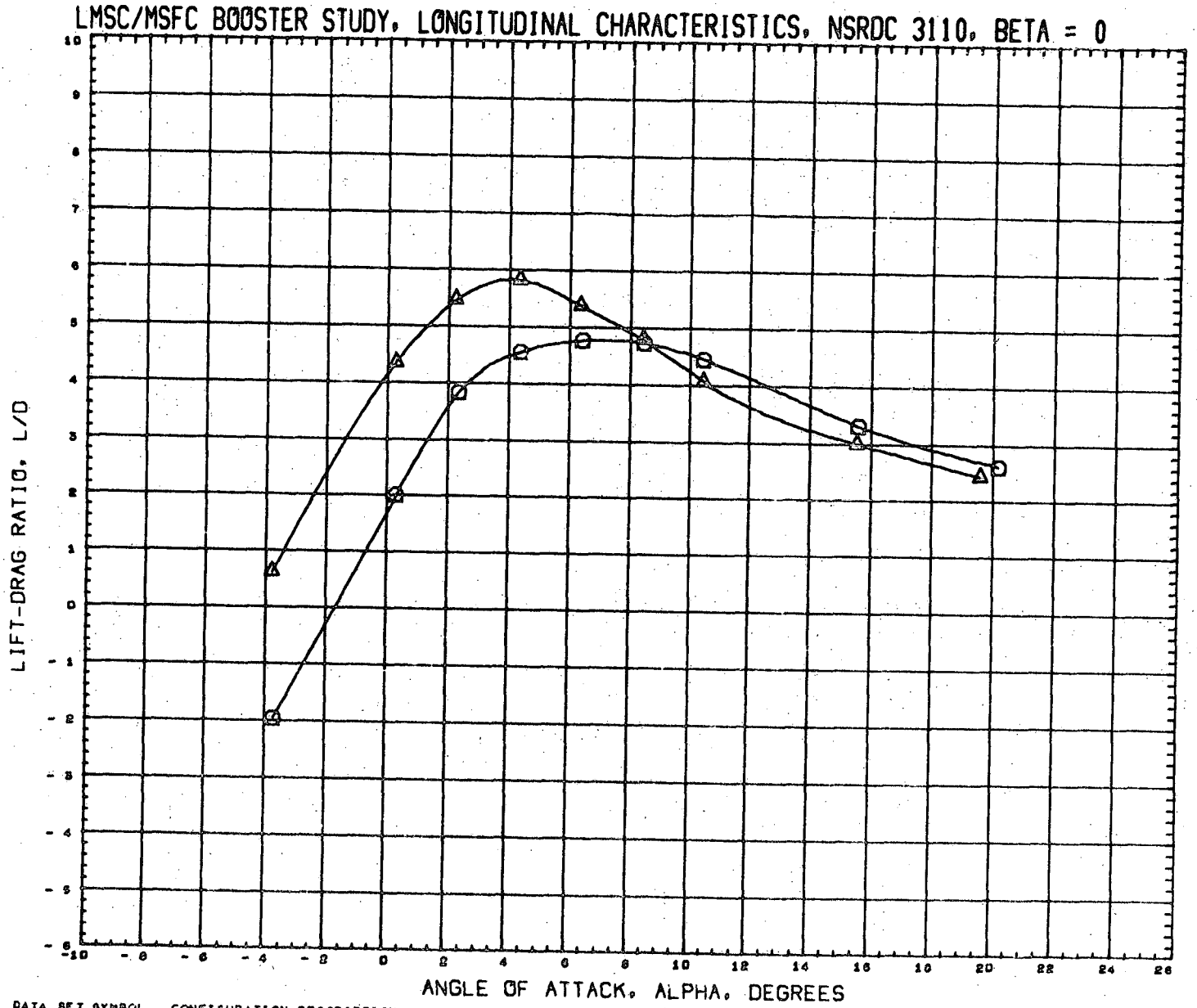
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2005) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 1.000 | 0.000 | 1.000 |
| (RN2037) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 1.000 | 3.000 | 1.000 |

MACH 0.379

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |




| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION |
|---|---|---|
| (RN2005) | | MSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 |
| (RN2037) | | NORDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 |

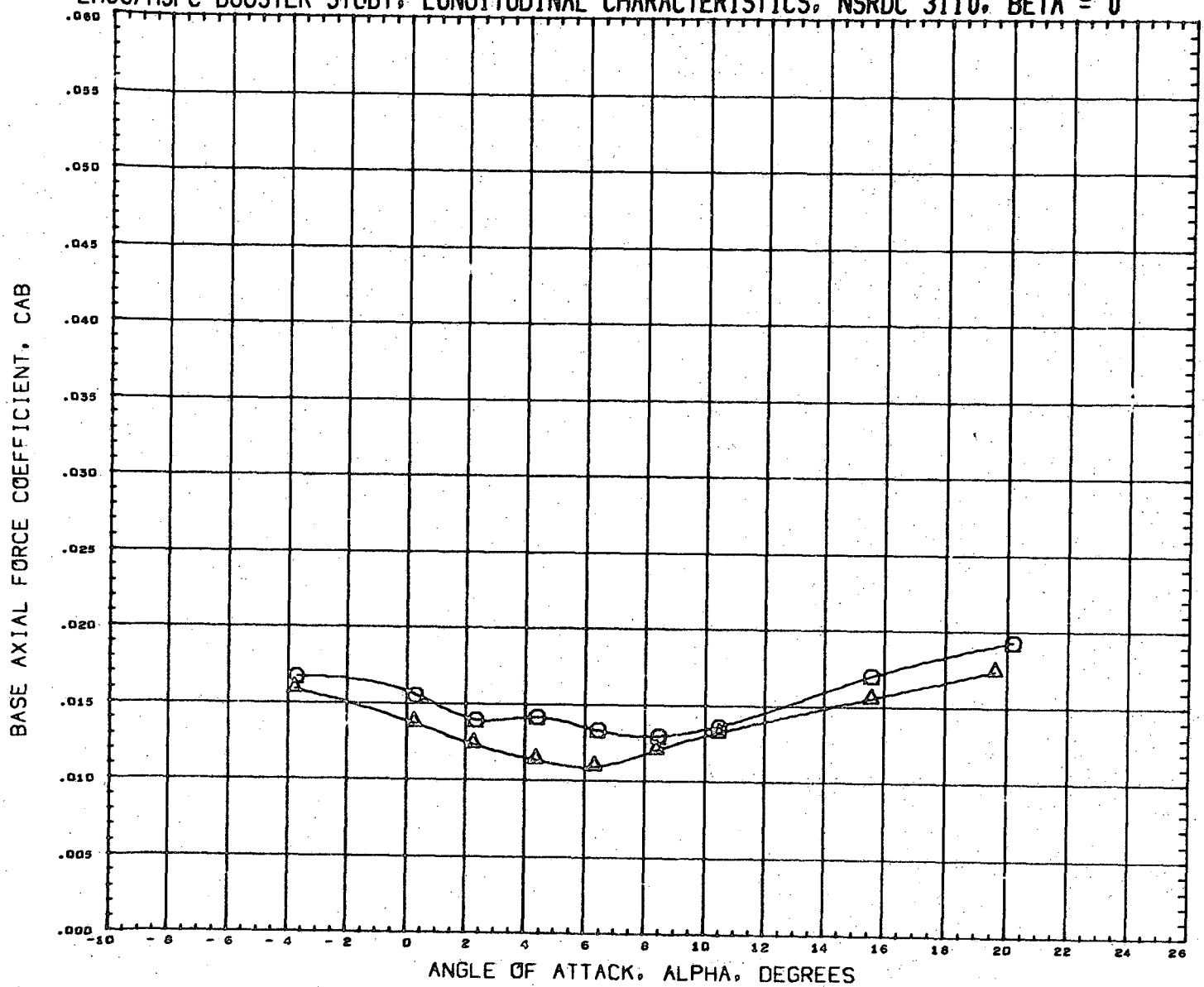
| INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|
| 15.000 | 1.000 | 0.000 | 1.000 |
| 15.000 | 1.000 | 3.000 | 1.000 |

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

MACH 0.379

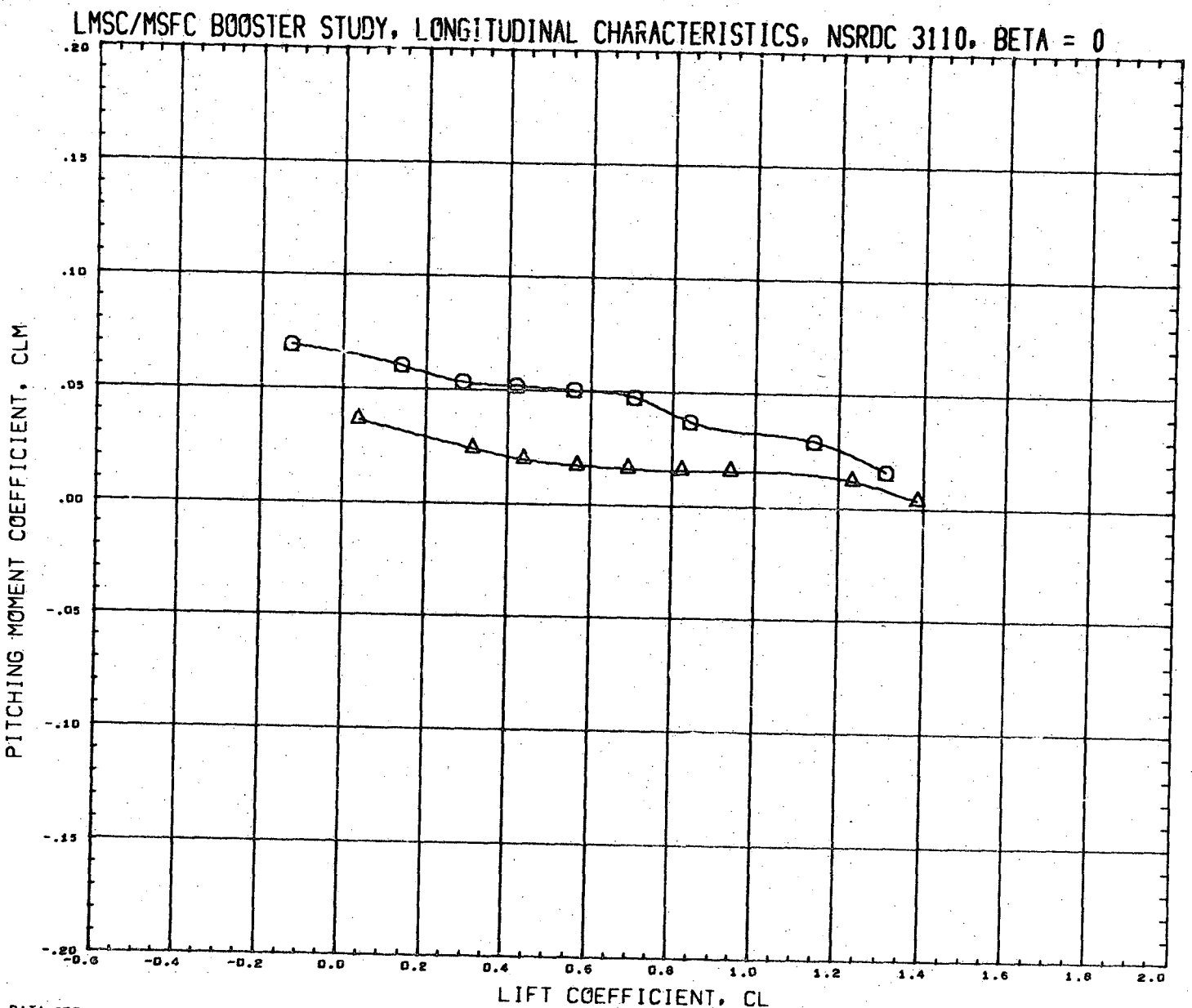
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2005) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 1.000 | 0.000 | 1.000 |
| (RN2037) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 1.000 | 3.000 | 1.000 |

MACH 0.379

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

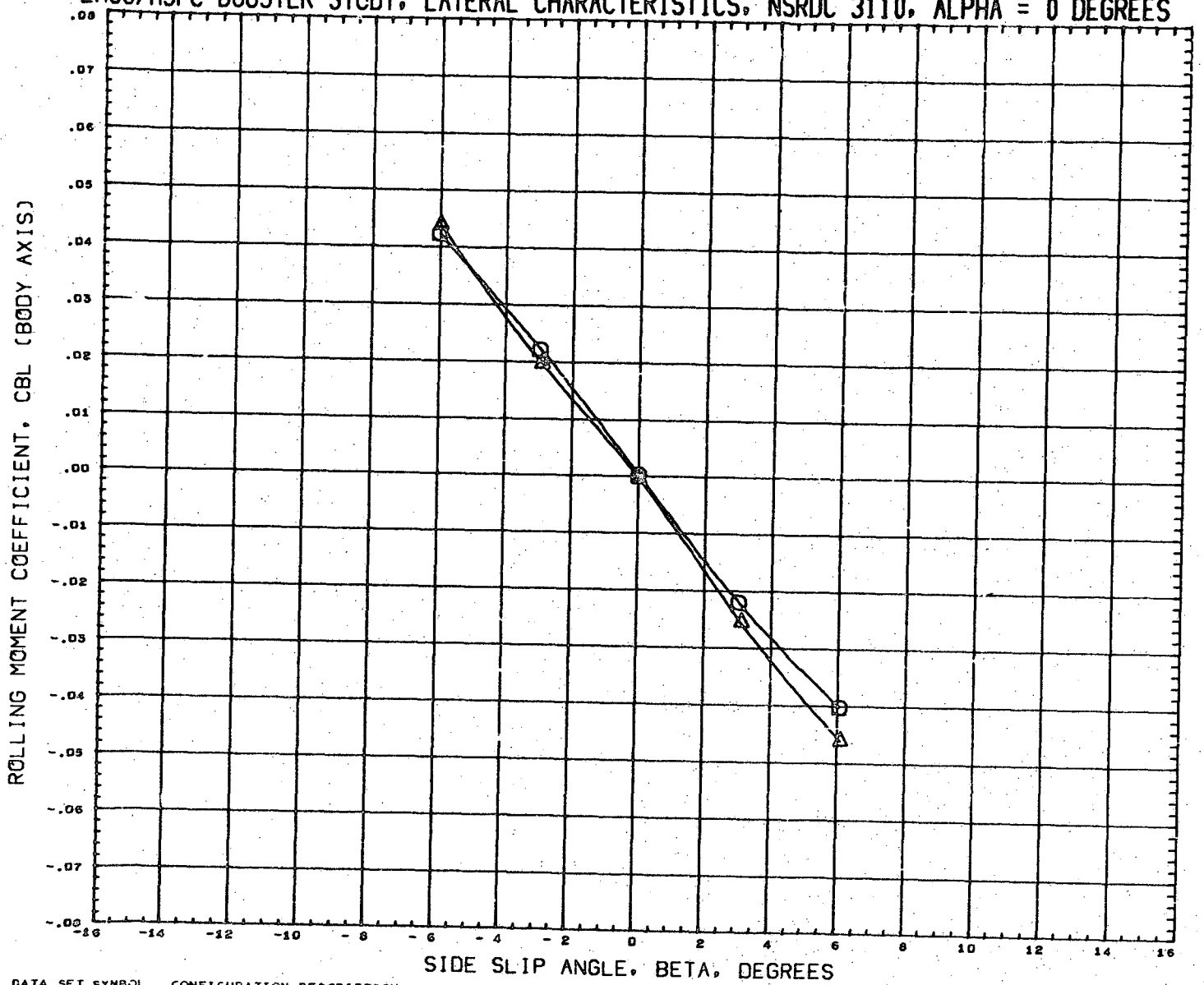



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2005) ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 1.000 | 0.000 | 1.000 |
| (RN2037) △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 1.000 | 3.000 | 1.000 |

MACH 0.379

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4350 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

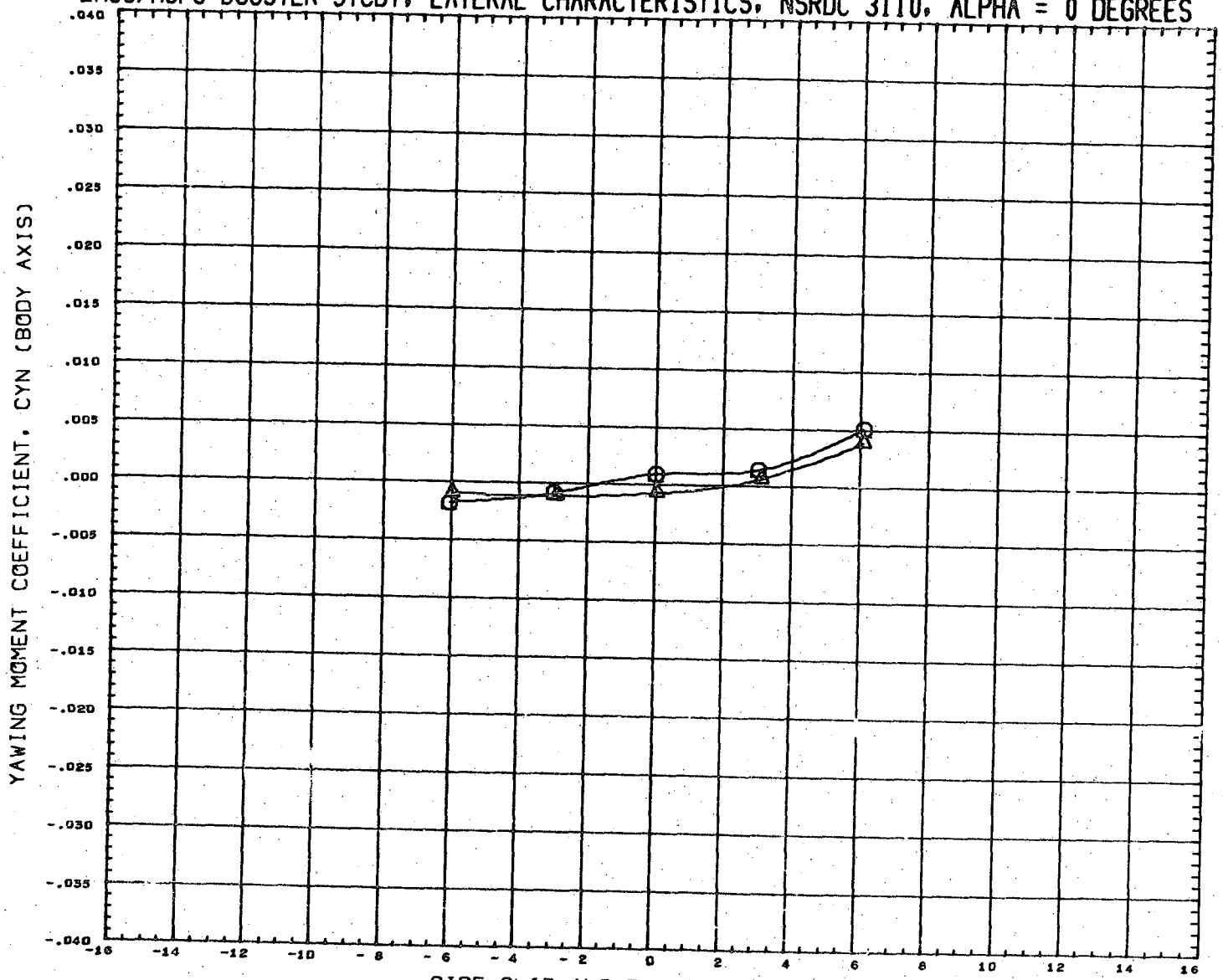



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2006) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 1.000 | 0.000 | 1.000 |
| (RN2038) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 1.000 | 3.000 | 1.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

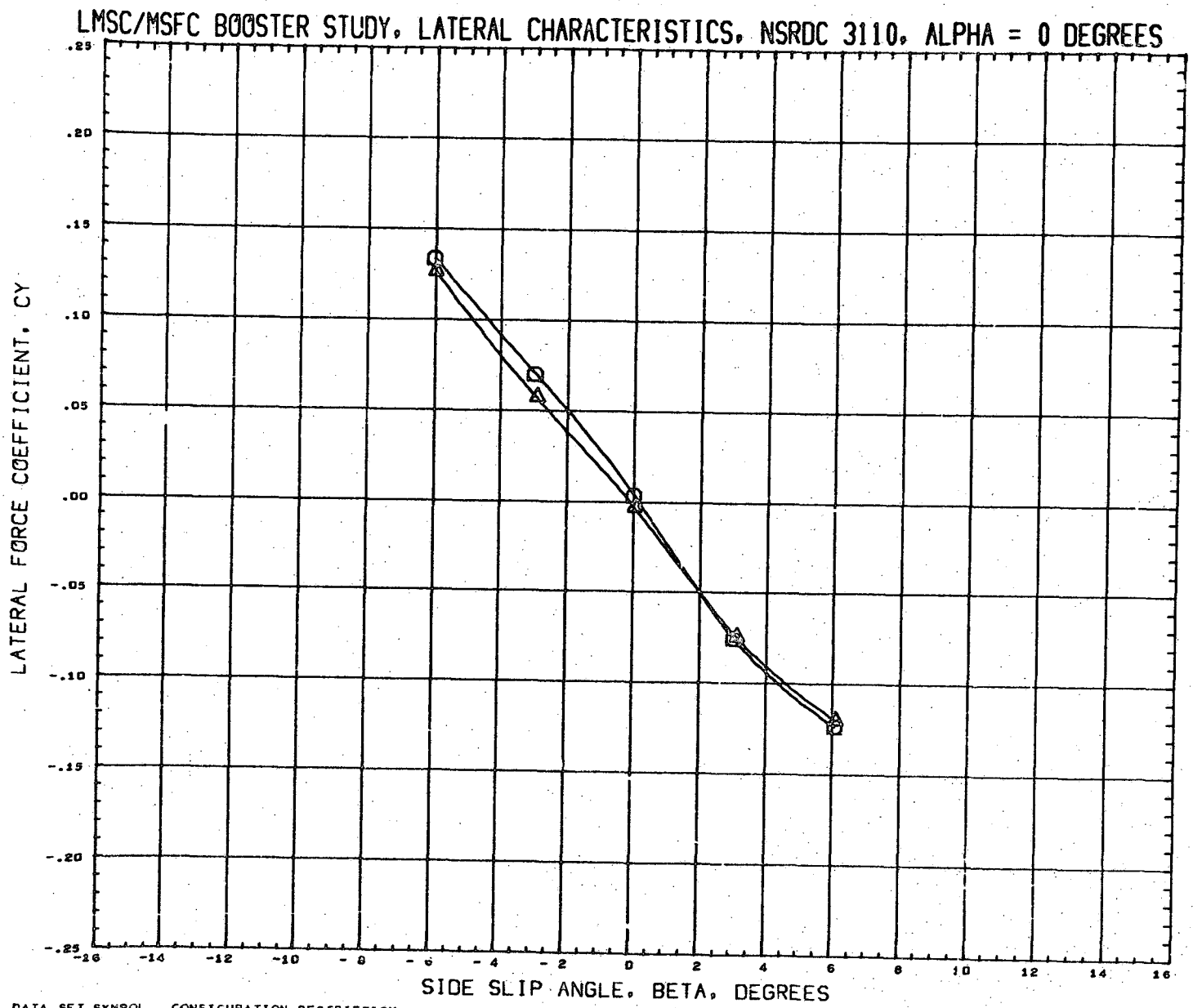
# LMSC/MSFC BØØSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2006) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 1.000 | 0.000 | 1.000 |
| (RN2038) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 1.000 | 3.000 | 1.000 |

MACH 0.360

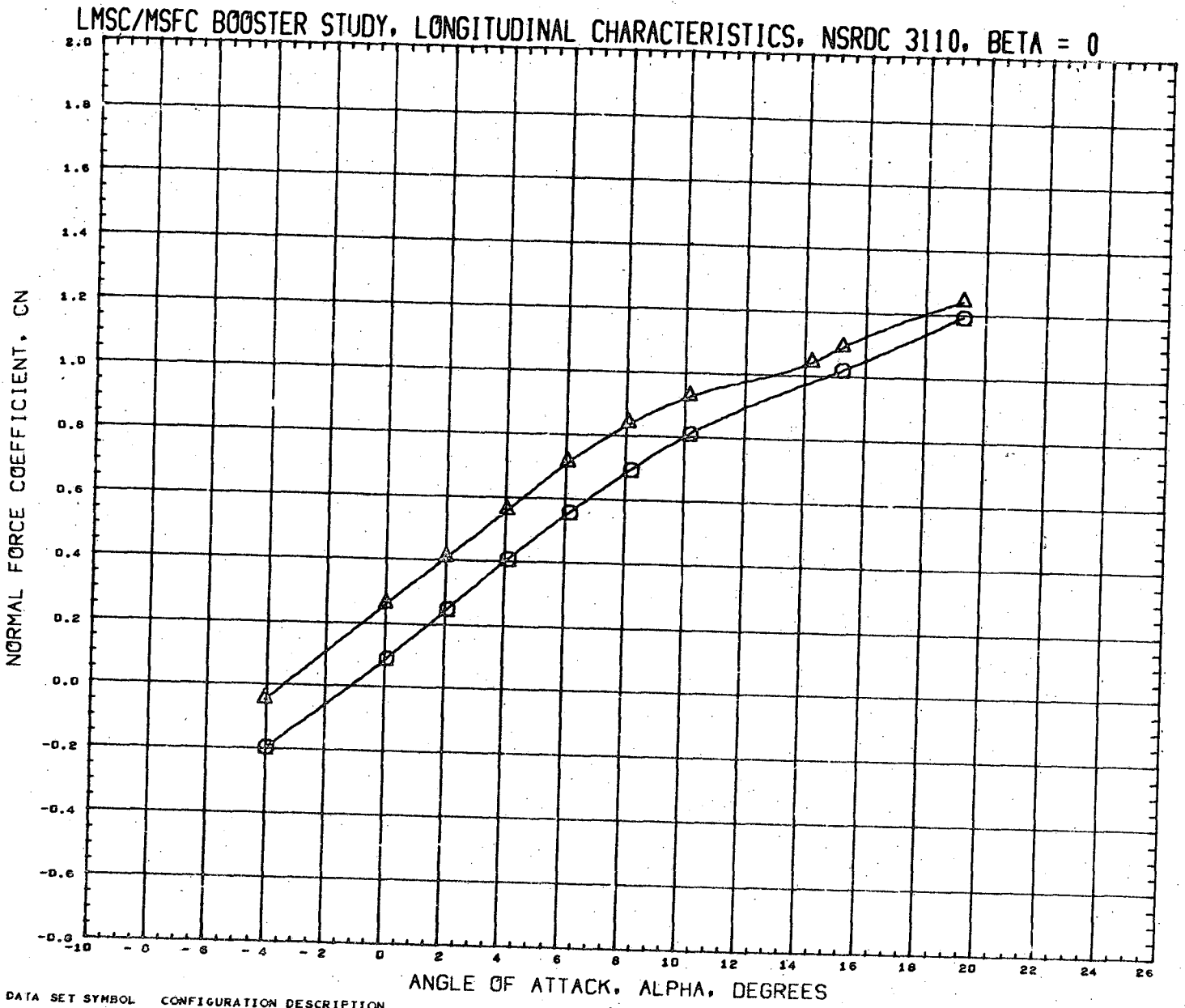
| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2006) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 1.000 | 0.000 | 1.000 |
| (RN2038) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 1.000 | 3.000 | 1.000 |

MACH 0.380

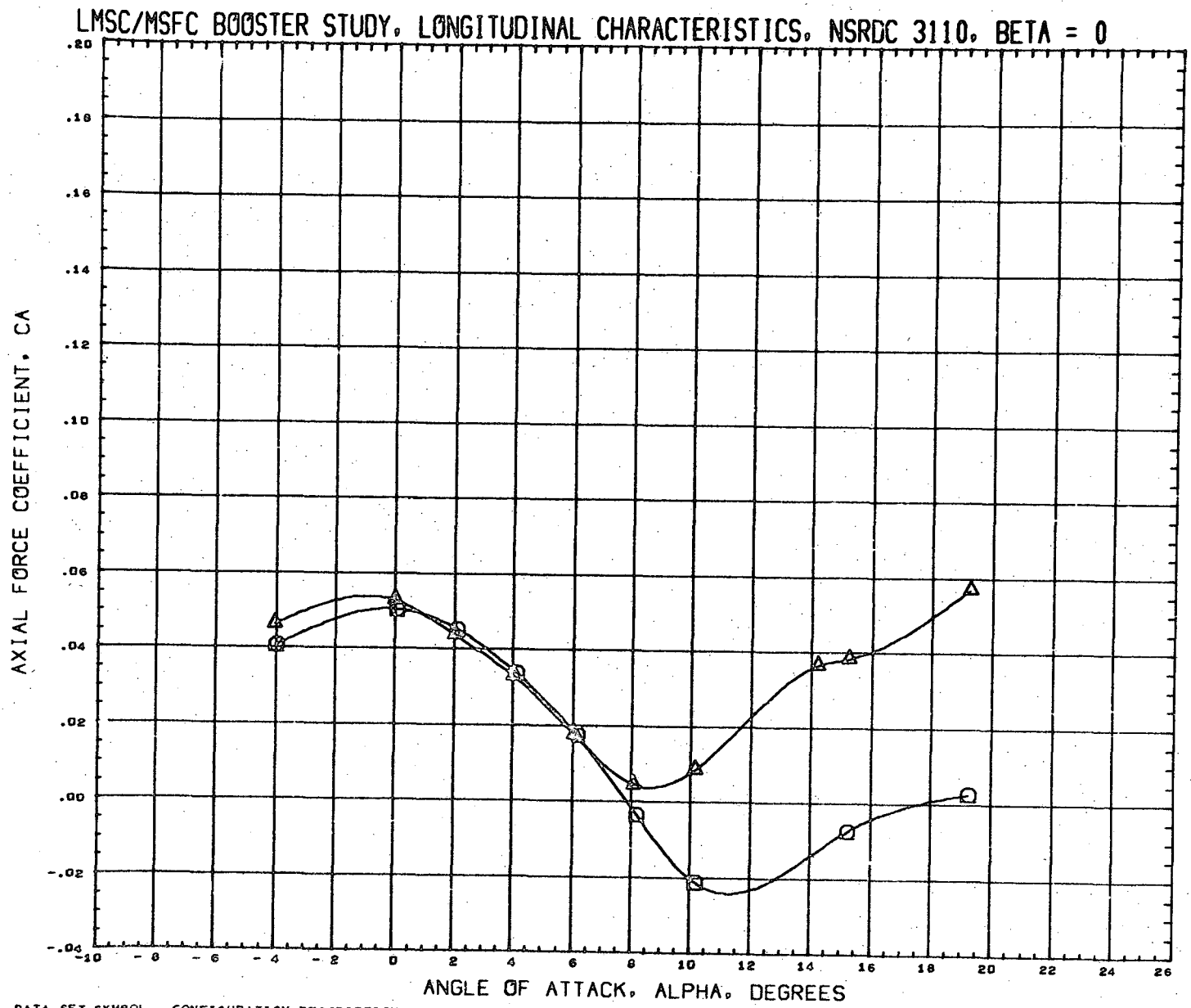
| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |




| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2009) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 2.000 | 0.000 | 1.000 |
| (RN2041) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 2.000 | 3.000 | 1.000 |

MACH 0.381

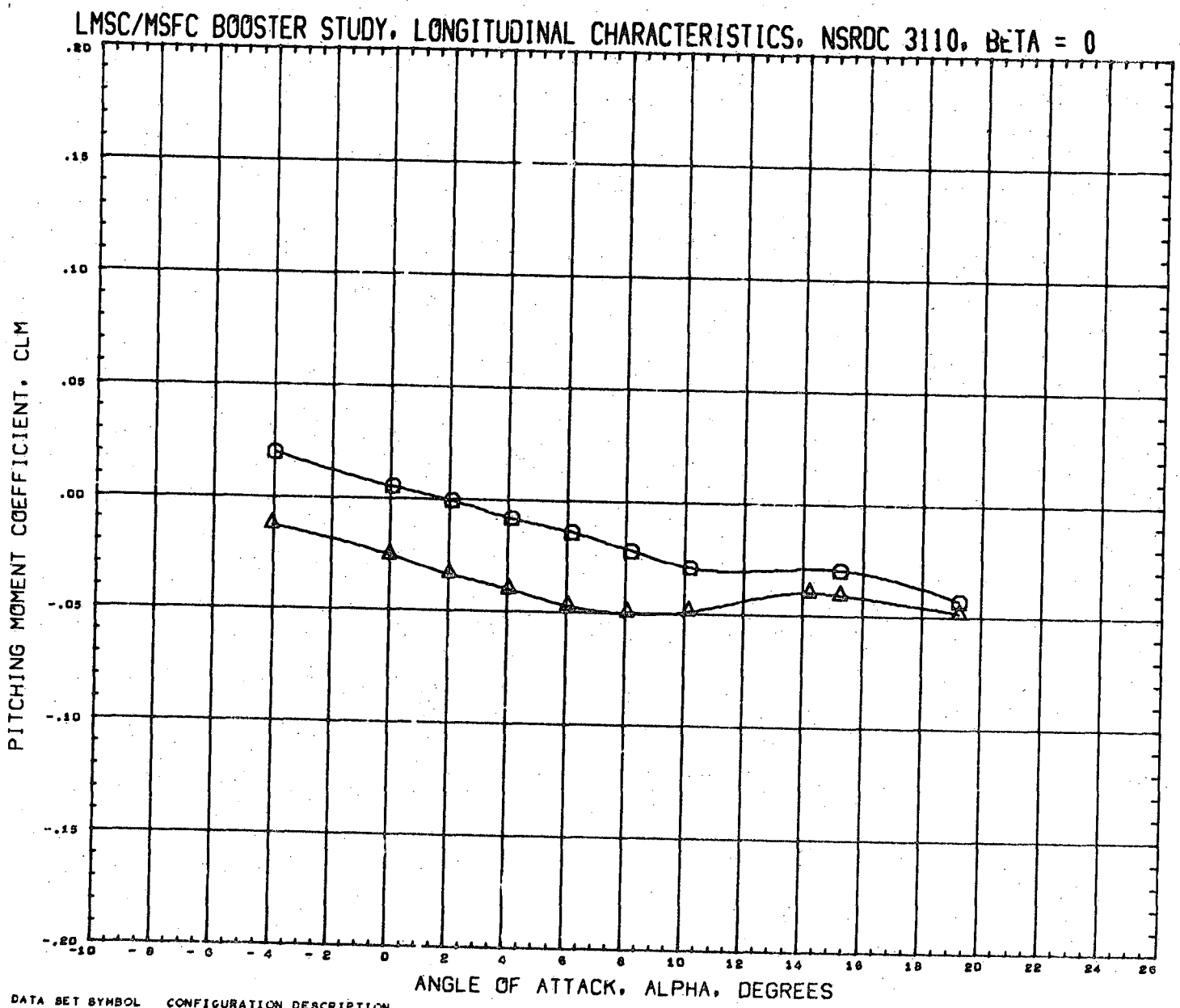
| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2009) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 2.000 | 0.000 | 1.000 |
| (RN2041) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 2.000 | 3.000 | 1.000 |

MACH 0.381

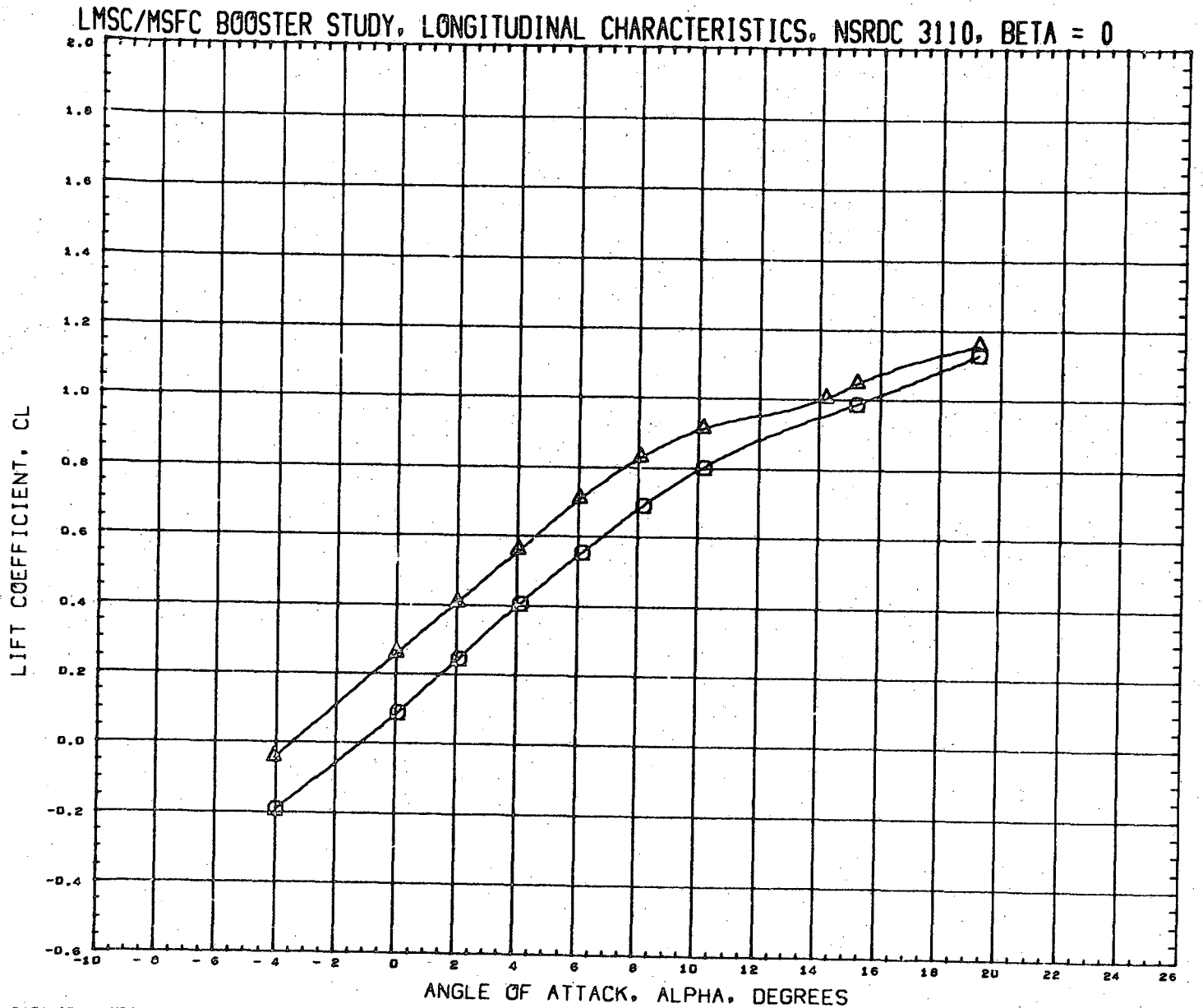
| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2009) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 2.000 | 0.000 | 1.000 |
| (RN2041) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 2.000 | 3.000 | 1.000 |

MACH 0.301

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

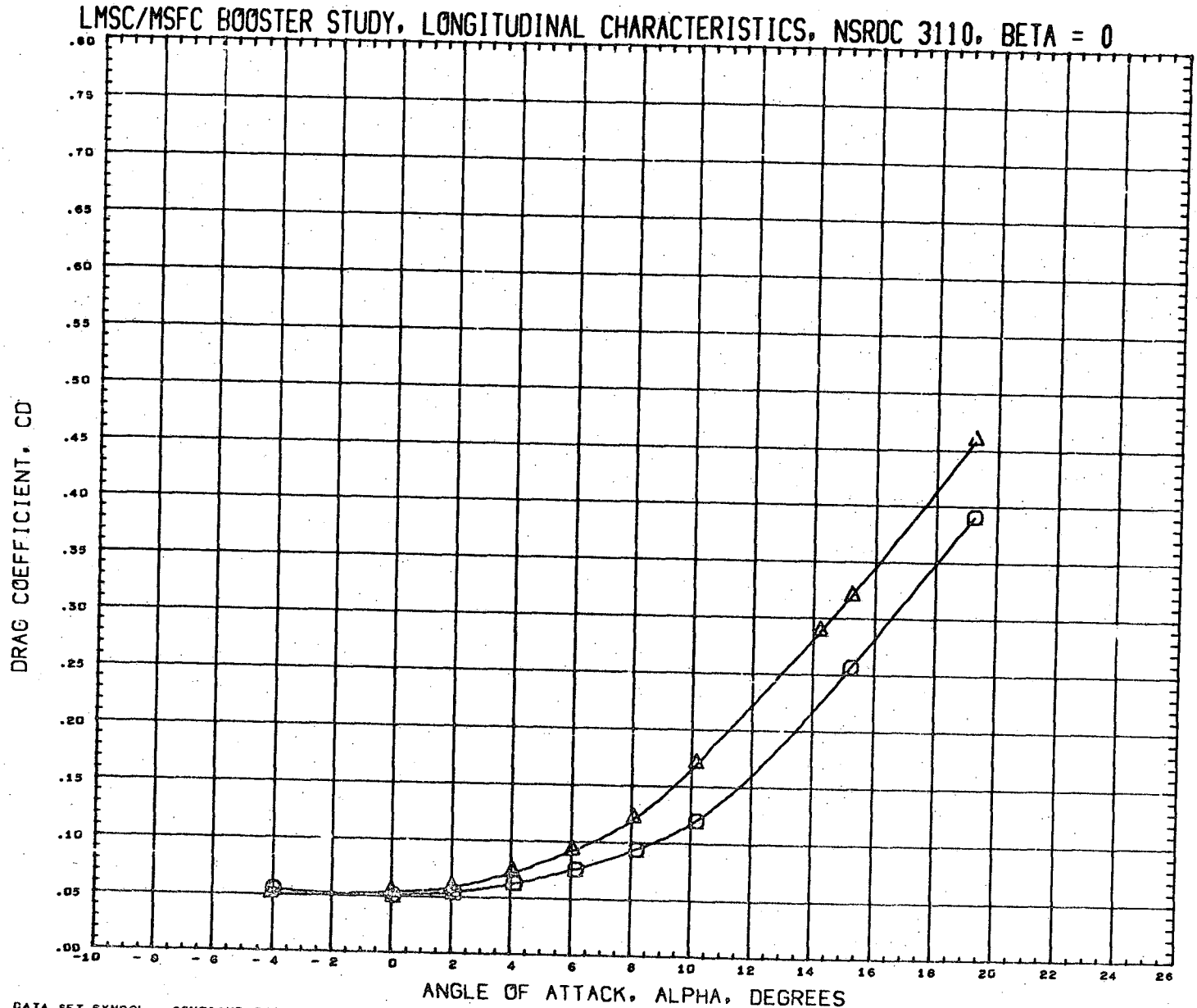



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2009) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 2.000 | 0.000 | 1.000 |
| (RN2041) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 2.000 | 3.000 | 1.000 |

MACH 0.381

REFERENCE INFORMATION

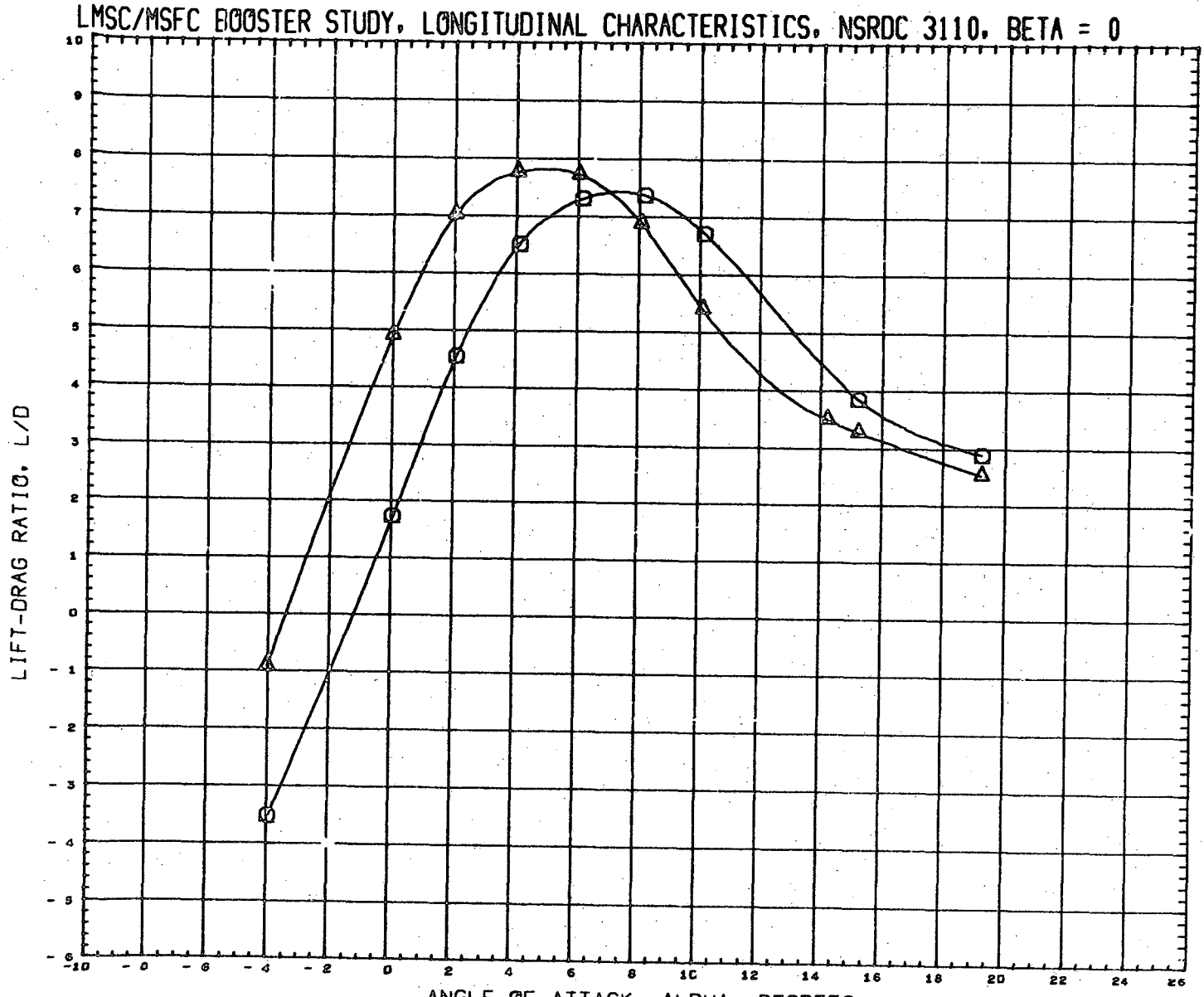
| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |




| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2009) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 2.000 | 0.000 | 1.000 |
| (RN2041) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 2.000 | 3.000 | 1.000 |

MACH 0.361

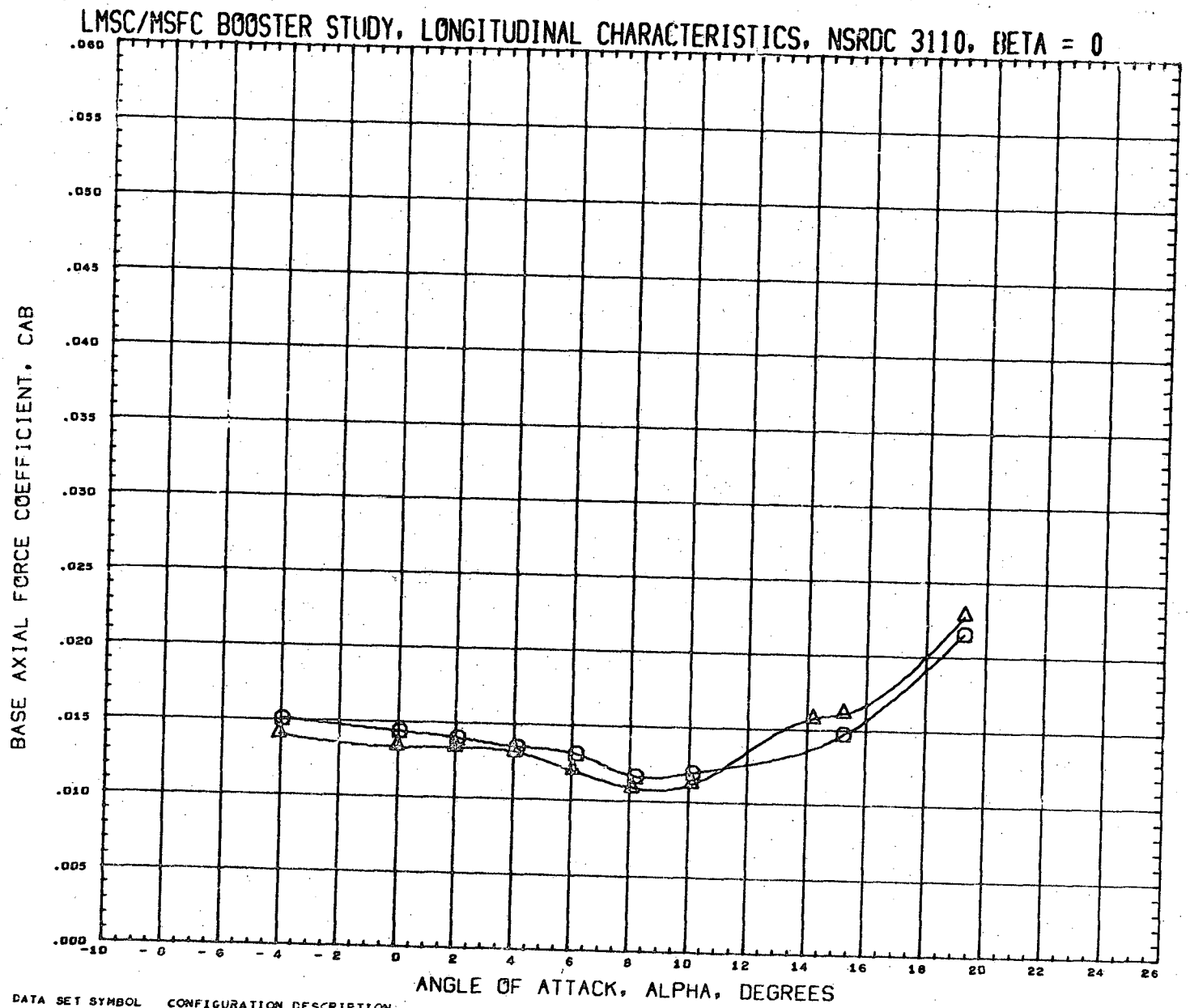
| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2009) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 2.000 | 0.000 | 1.000 |
| (RN2041) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 2.000 | 3.000 | 1.000 |

MACH 0.081

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

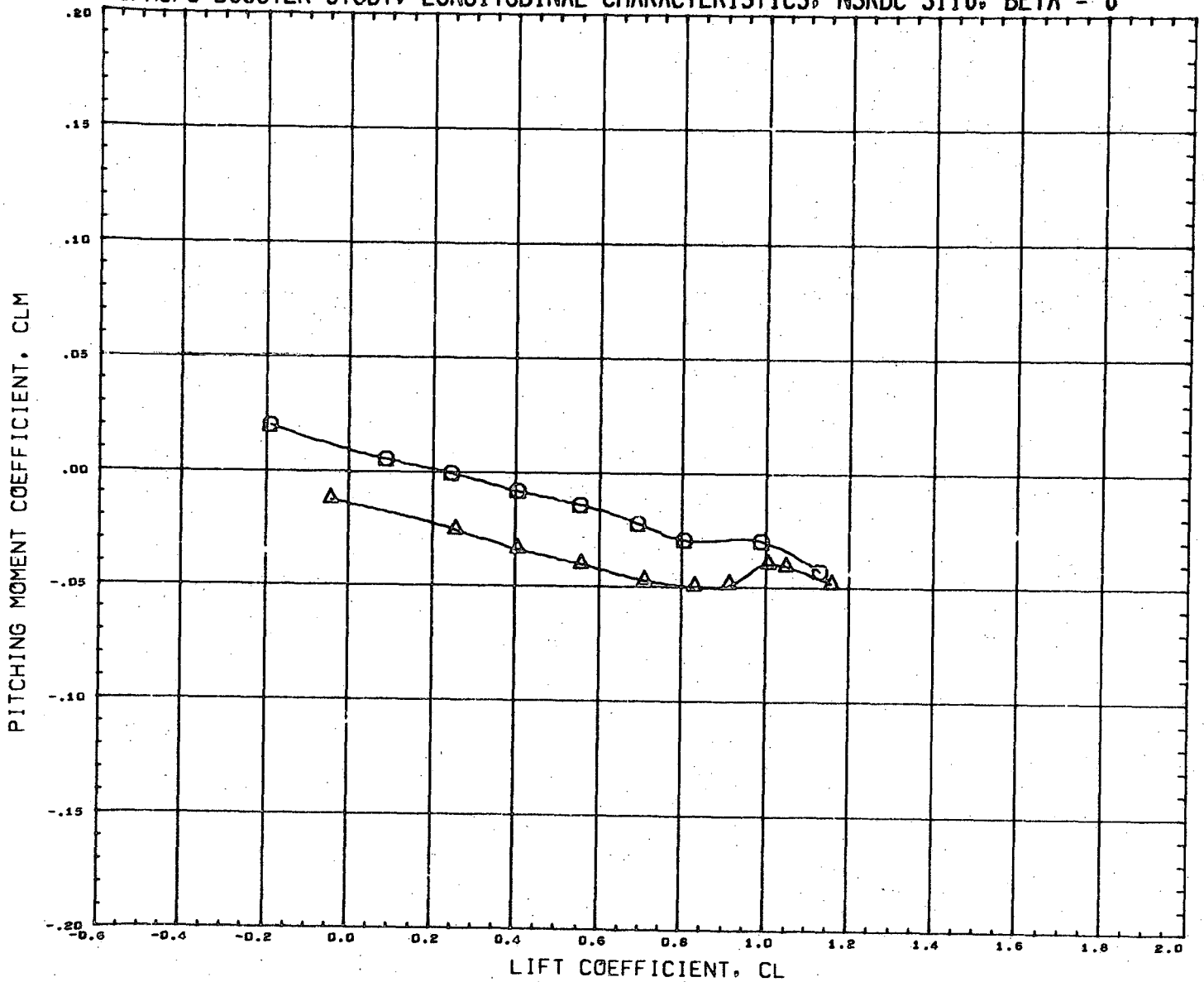



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2009) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 2.000 | 0.000 | 1.000 |
| (RN2041) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 2.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

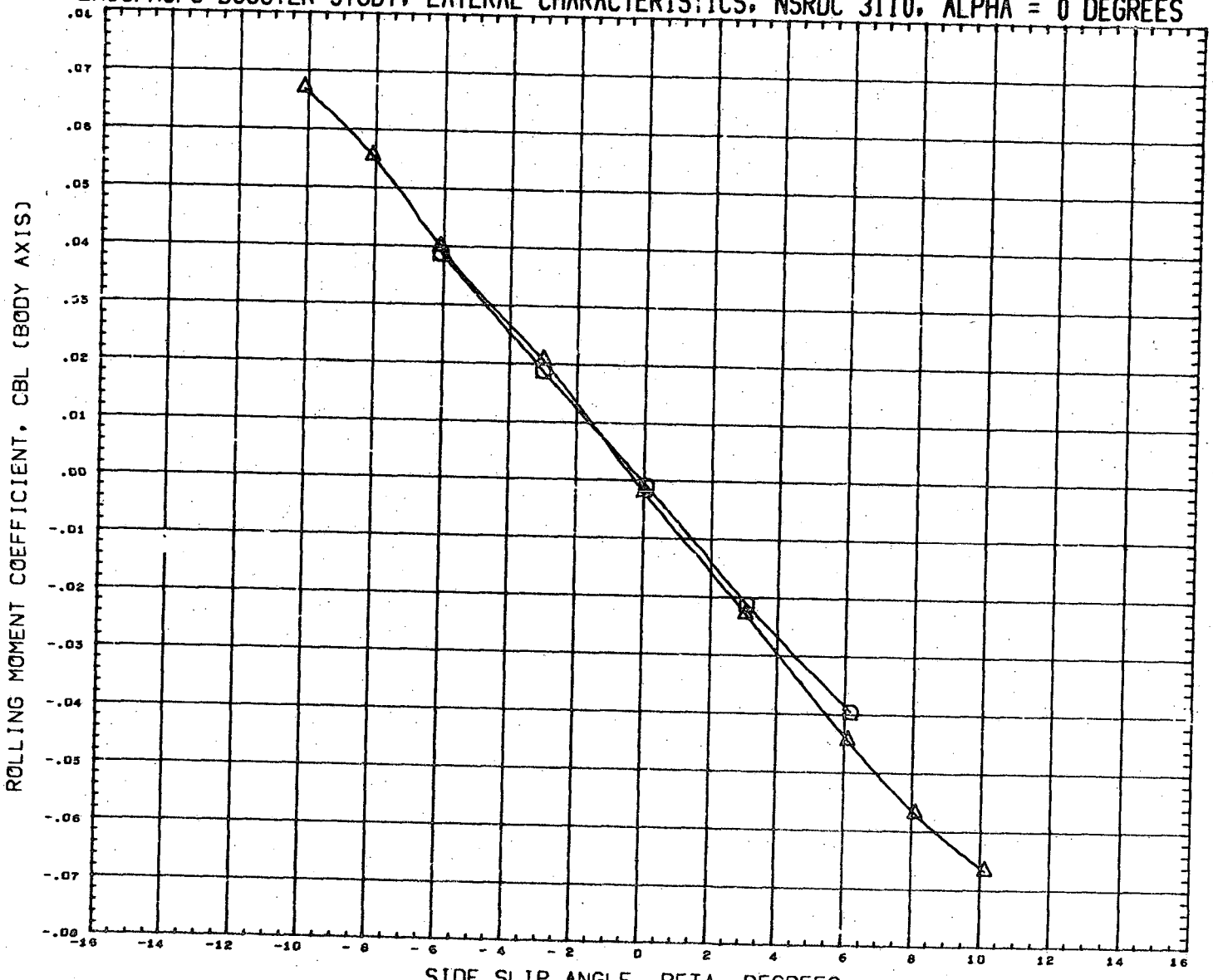



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2039) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 2.000 | 0.000 | 1.000 |
| (RN2041) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 2.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

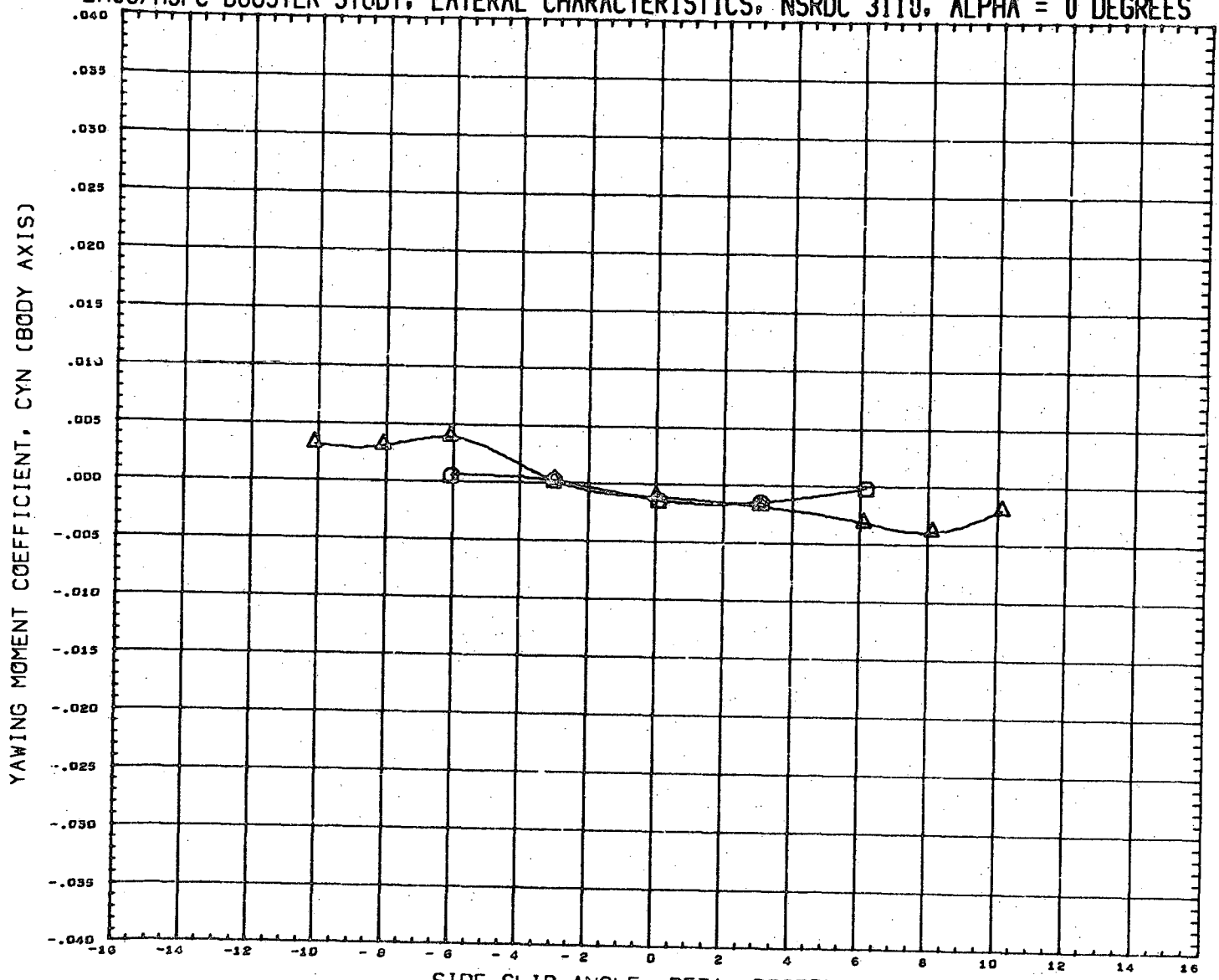



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2010) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 2.000 | 0.000 | 1.000 |
| (RN2042) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 2.000 | 3.000 | 1.000 |

MACH 0.382

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

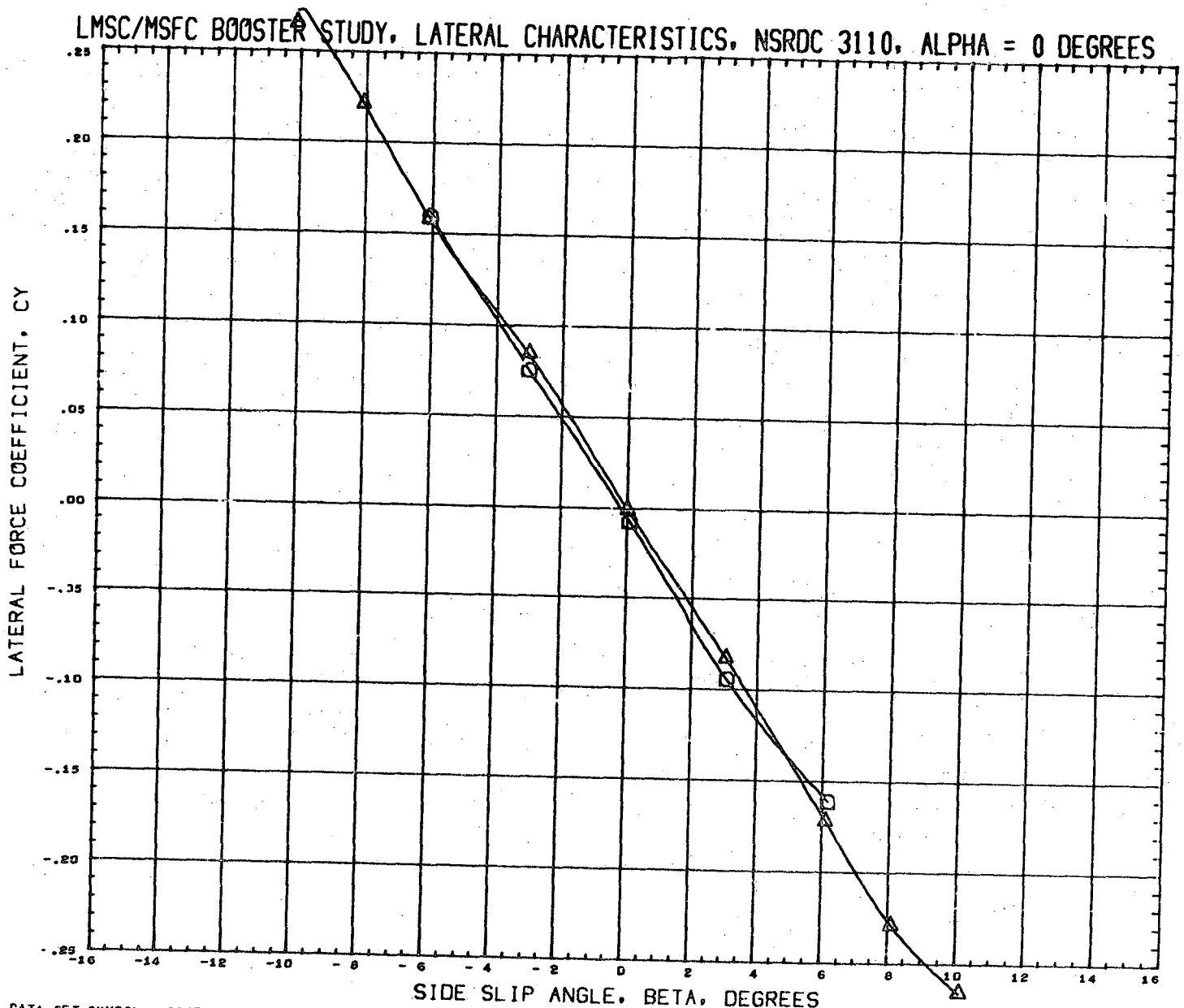



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION |
|---|---|---|
| (RN2010) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 |
| (RN2042) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 |

| INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|
| 3.000 | 2.000 | 0.000 | 1.000 |
| 3.000 | 2.000 | 3.000 | 1.000 |

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

MACH 0.382



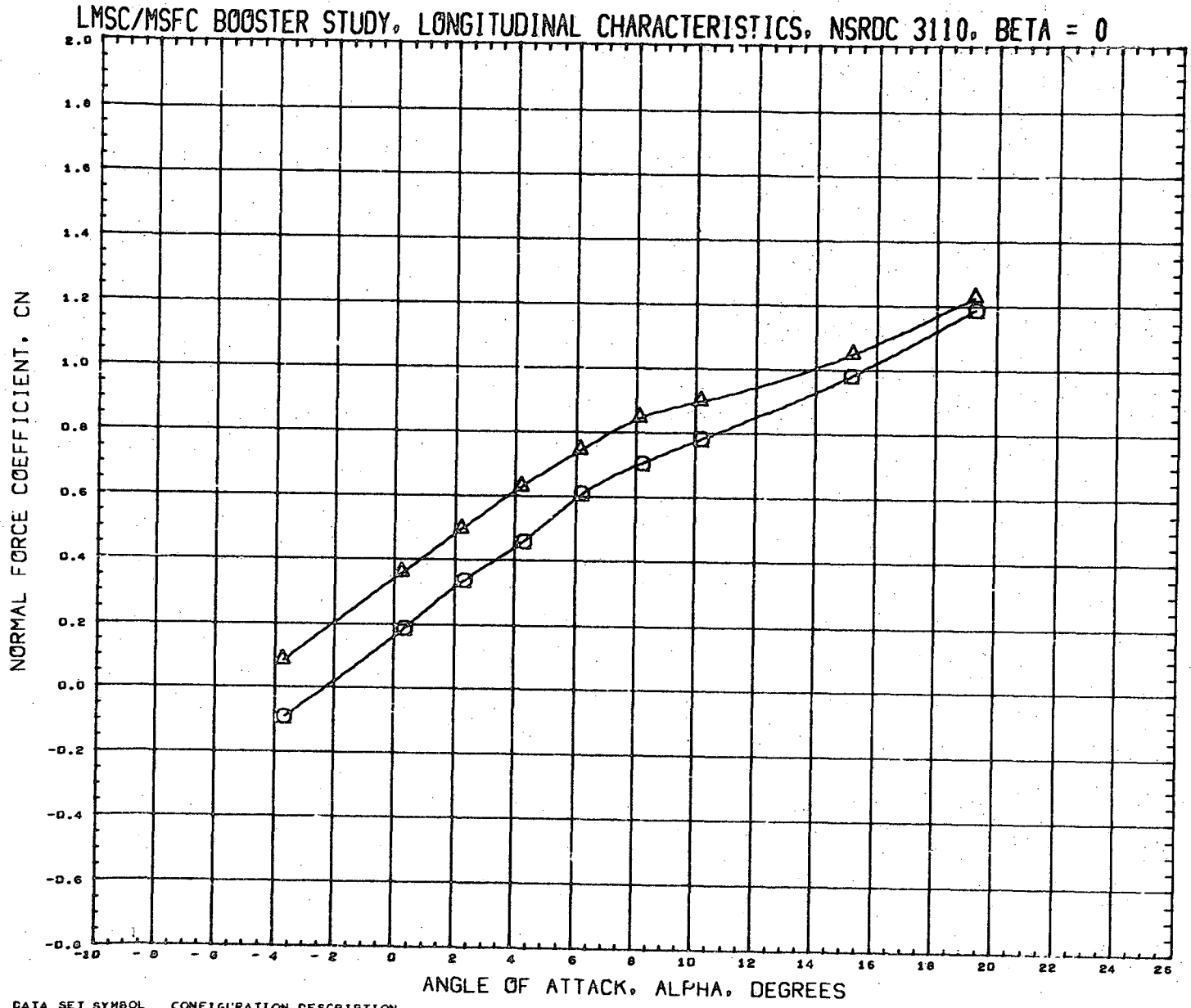

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION |
|---|---|---|
| (RN2010) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 |
| (RN2042) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 |

| INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|
| 3.000 | 2.000 | 0.000 | 1.000 |
| 3.000 | 2.000 | 3.000 | 1.000 |

MACH 0.382

REFERENCE INFORMATION

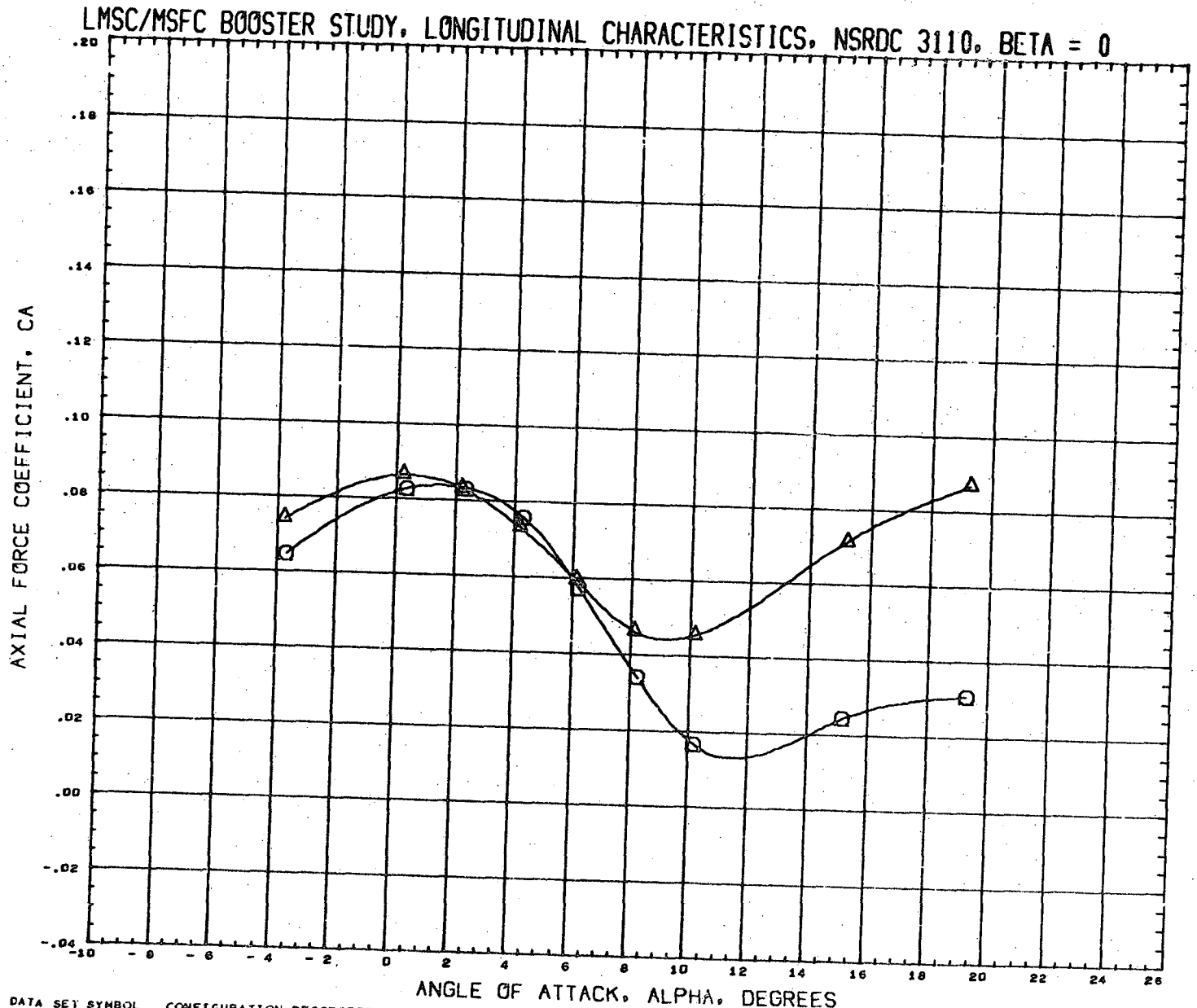
| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2013) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 2.000 | 0.000 | 1.000 |
| (RN2045) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 2.000 | 3.000 | 1.000 |

MACH 0.382

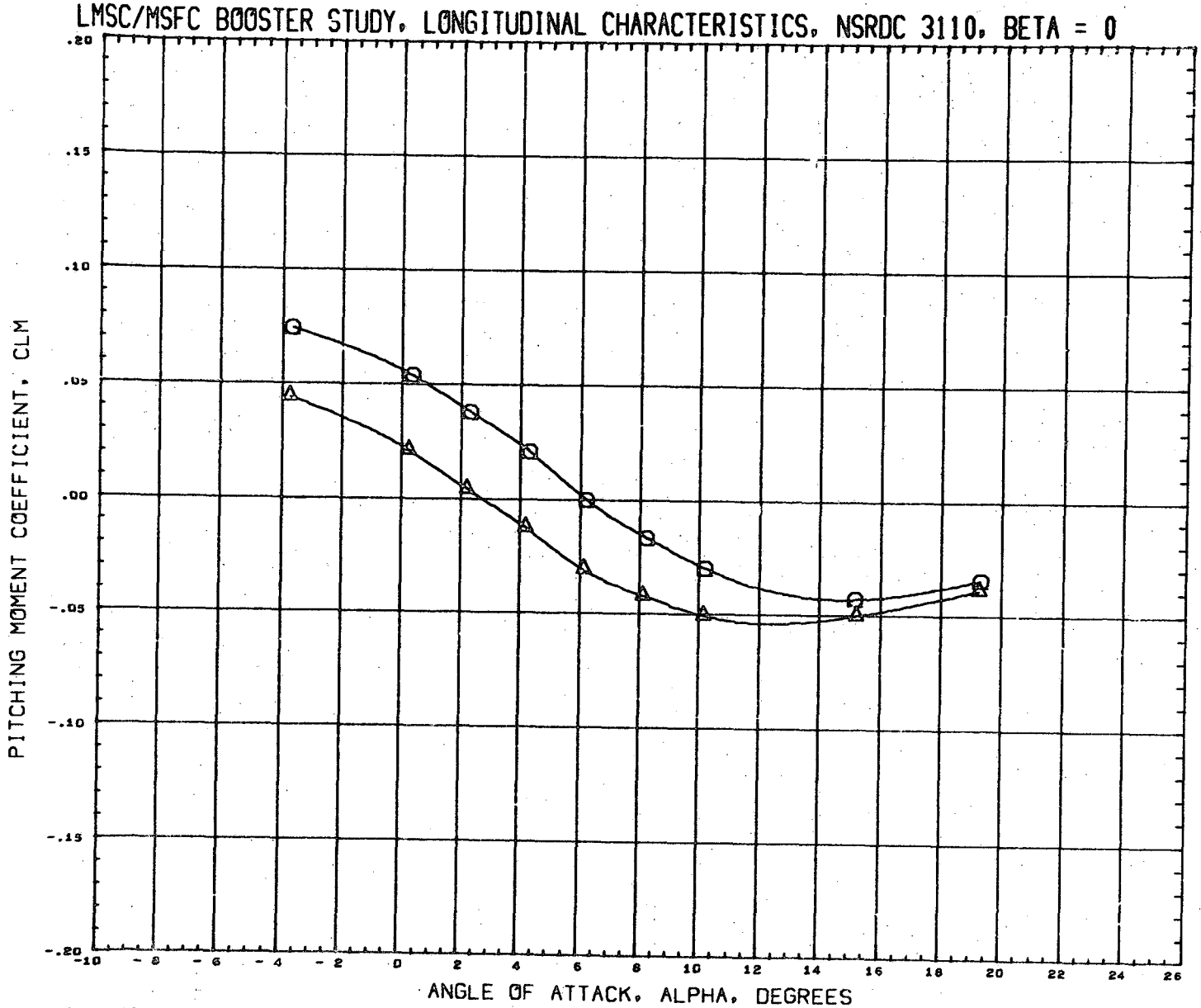
| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |




| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2013) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 2.000 | 0.000 | 1.000 |
| (RN2049) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C3F1W1V1 | 15.000 | 2.000 | 3.000 | 1.000 |

MACH 0.382

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

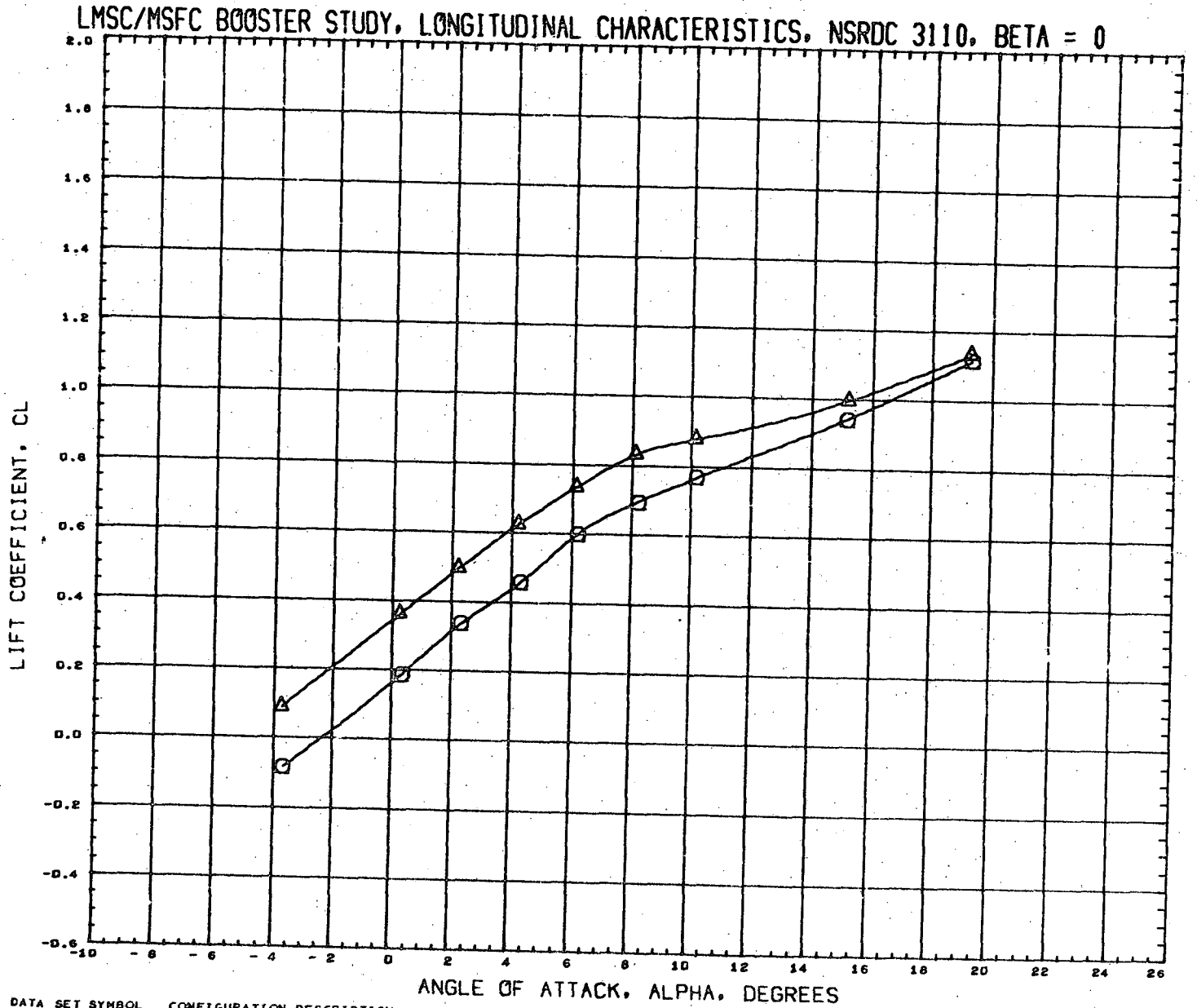



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2013) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 2.000 | 0.000 | 1.000 |
| (RN2045) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 2.000 | 3.000 | 1.000 |

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

MACH 0.382

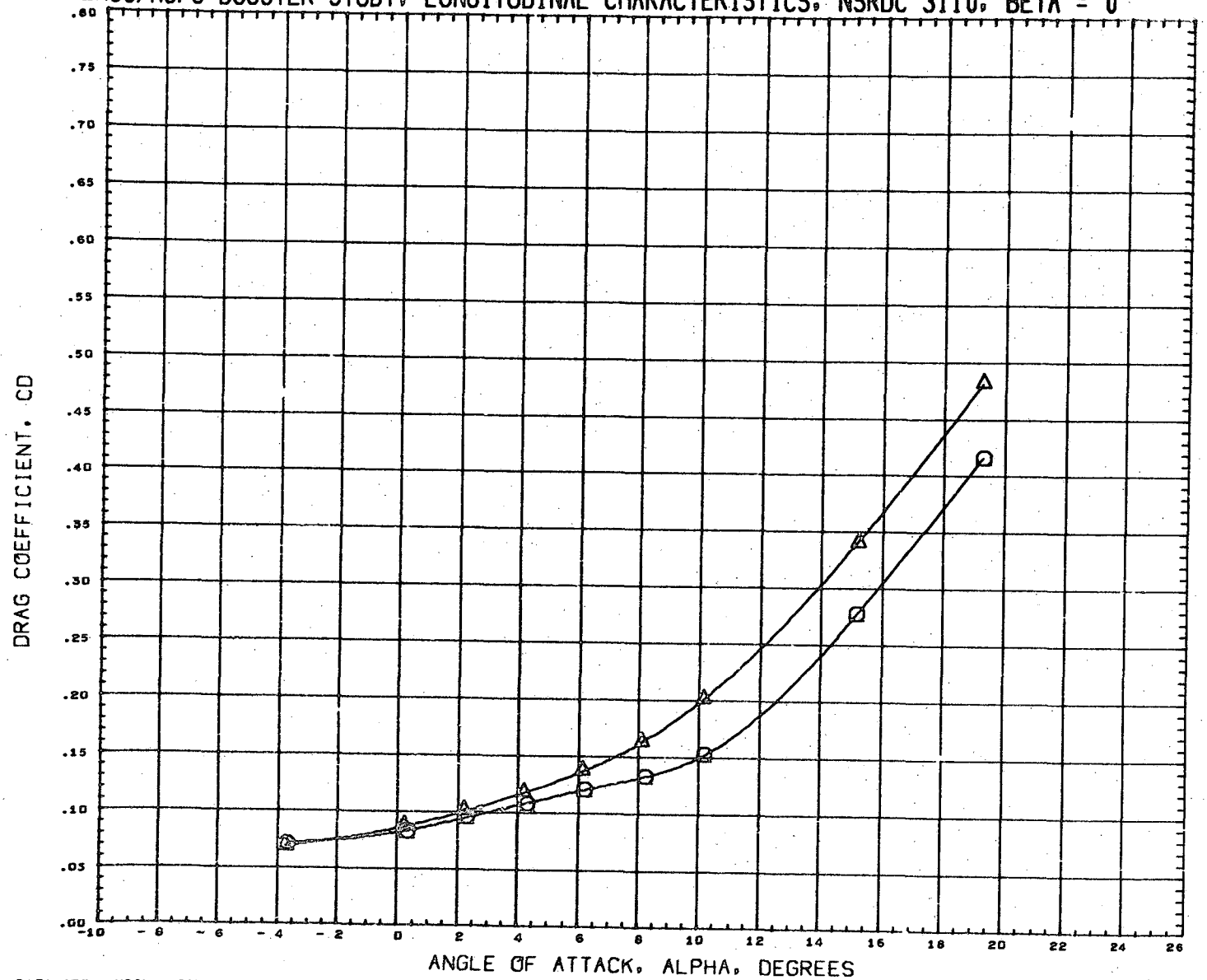



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2013) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 2.000 | 0.000 | 1.000 |
| (RN2045) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 2.000 | 3.000 | 1.000 |

MACH 0.382

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

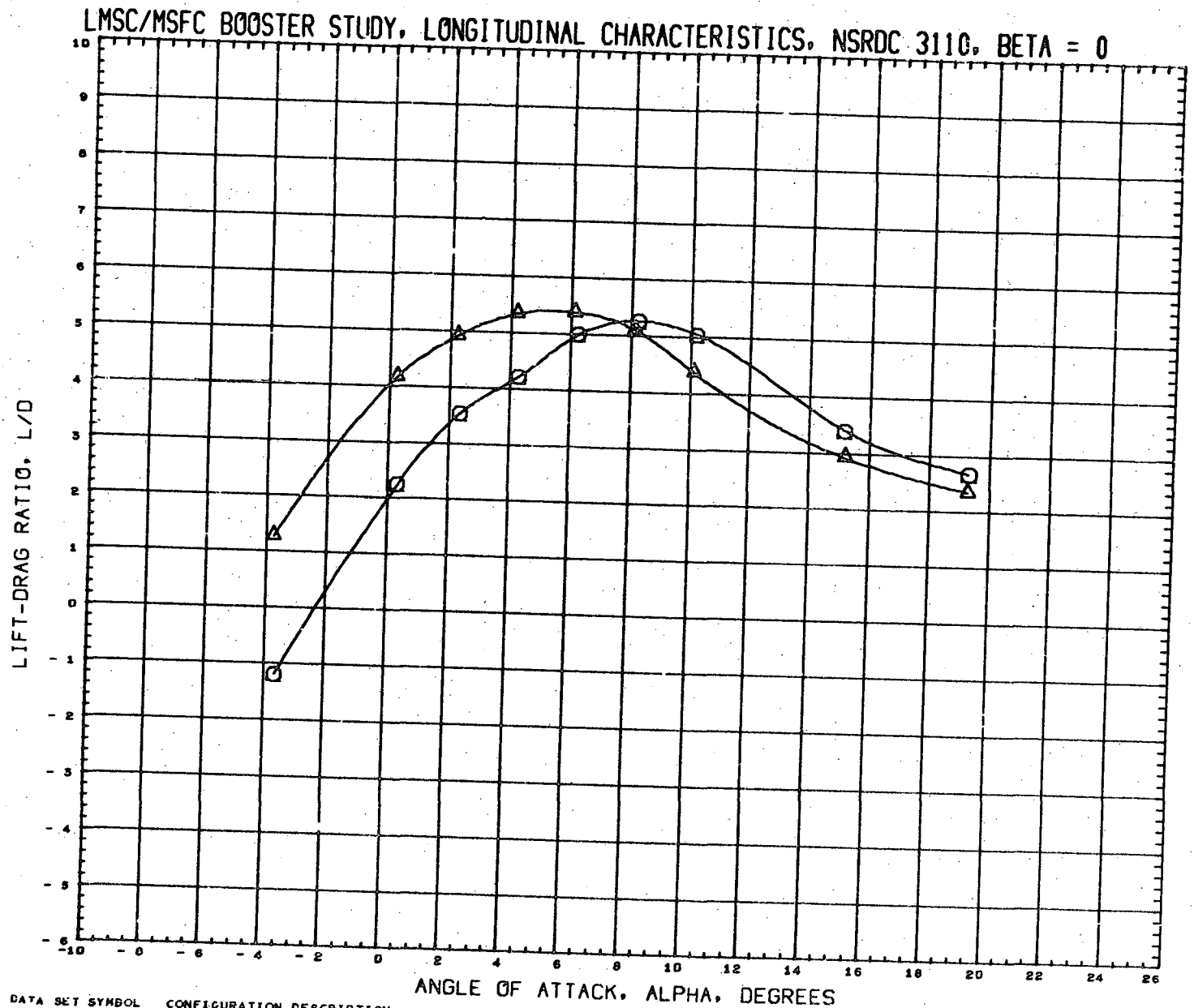
LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2013) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 2.000 | 0.000 | 1.000 |
| (RN2045) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 2.000 | 3.000 | 1.000 |

MACH 0.382

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

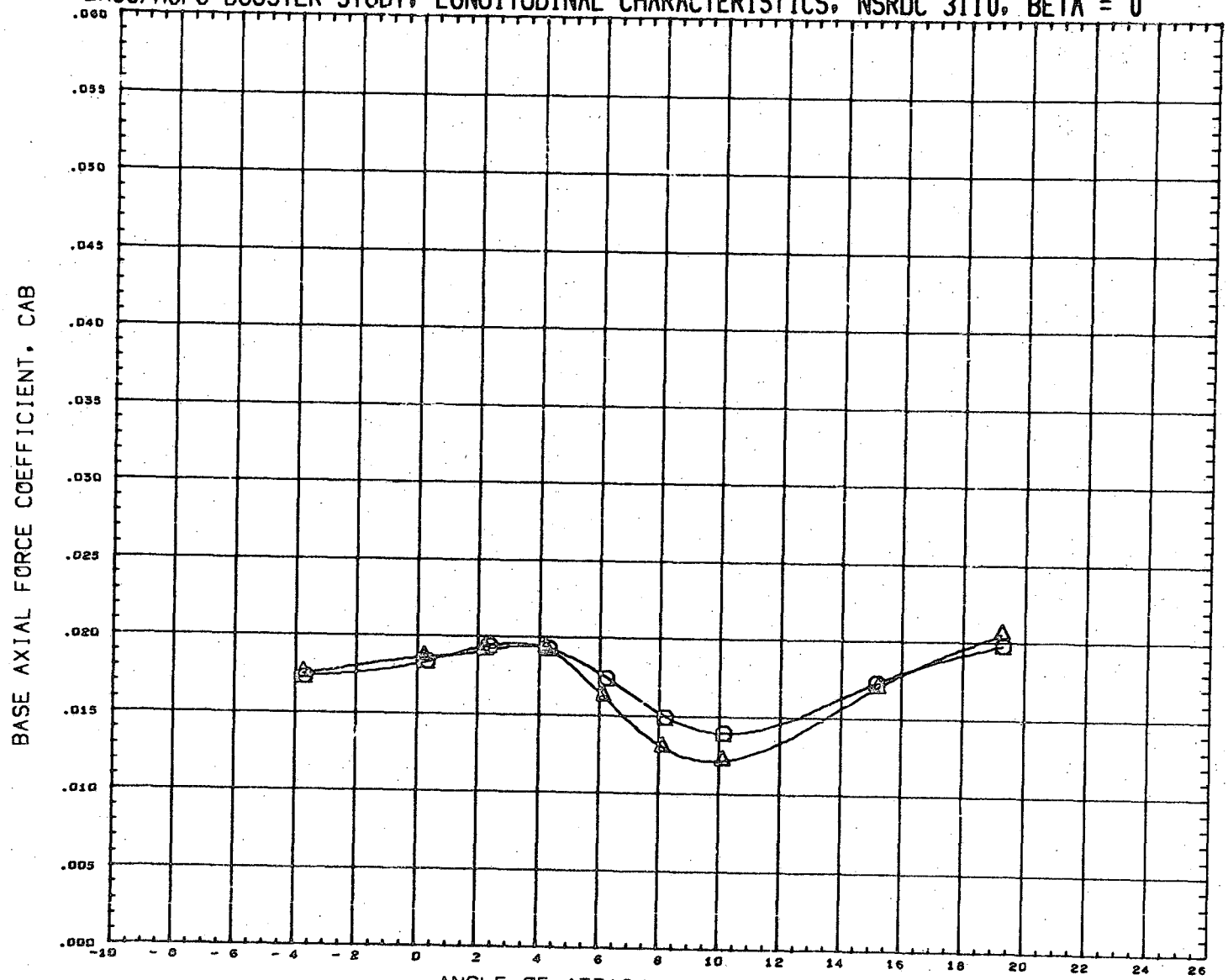



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2013) | NSRDC-311C,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 2.000 | 0.000 | 1.000 |
| (RN2045) | NSRDC-311D,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 2.000 | 3.000 | 1.000 |

MACH 0.382

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

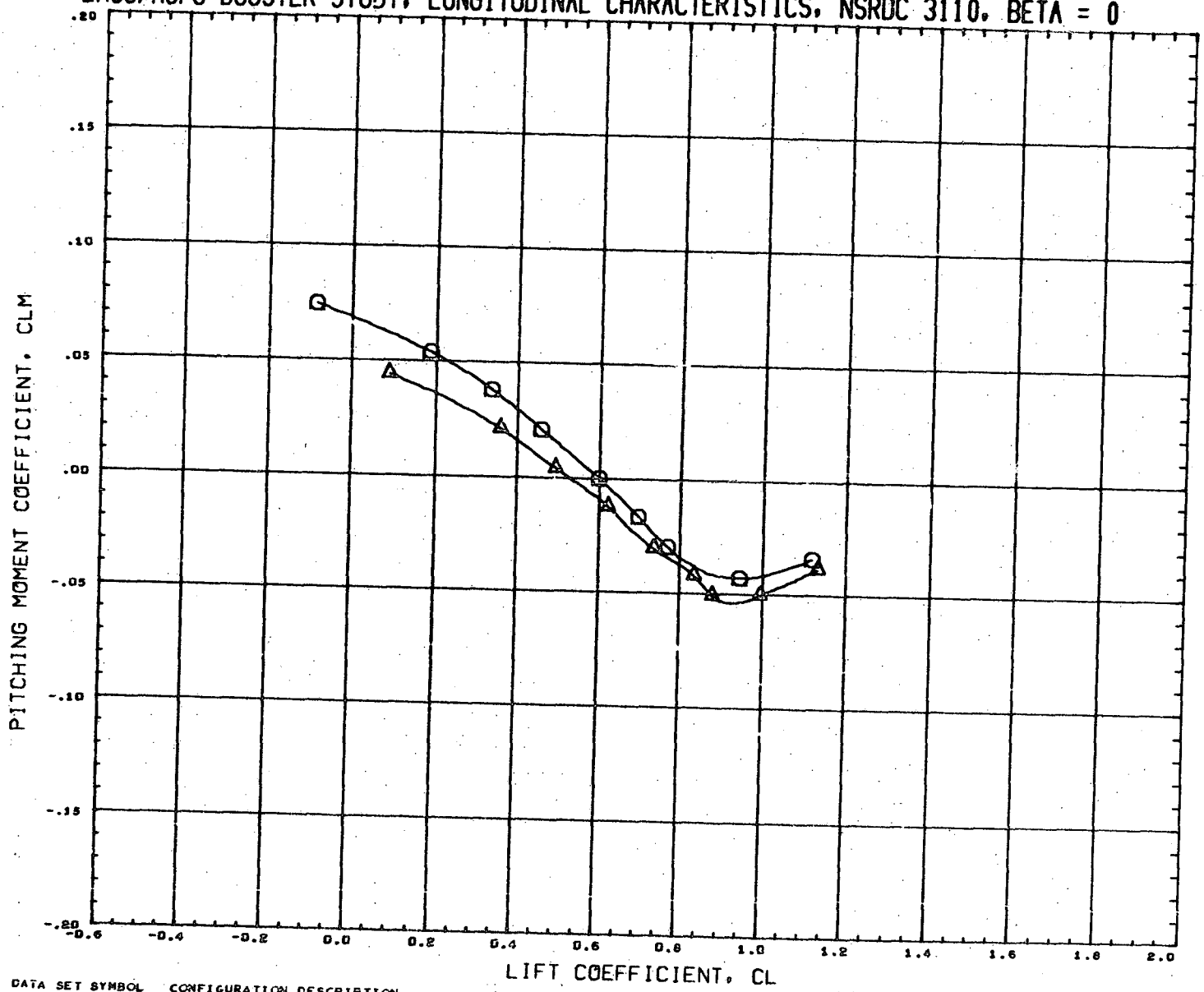



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2013) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 2.000 | 0.000 | 1.000 |
| (RN2045) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 2.000 | 3.000 | 1.000 |

MACH 0.382

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

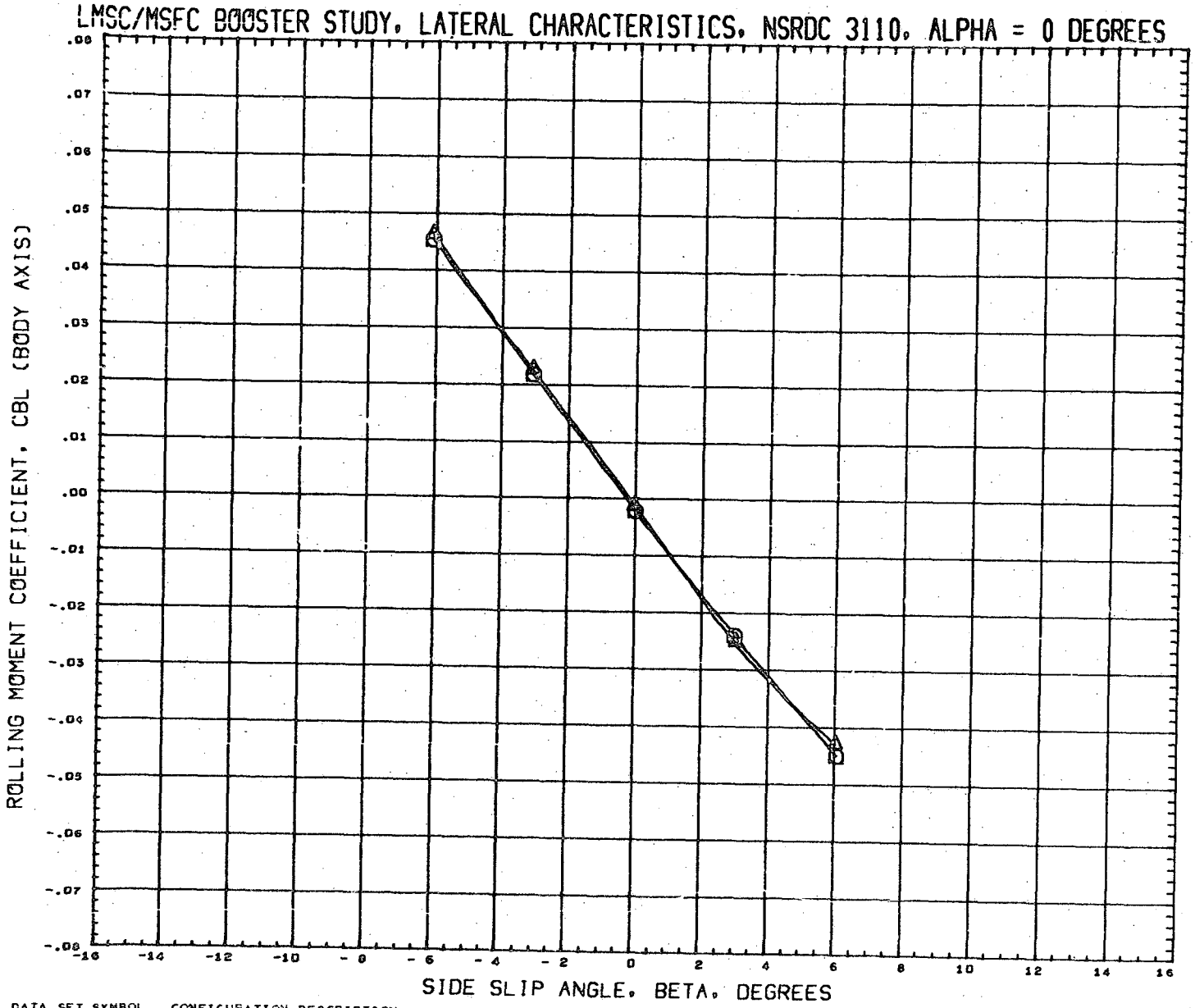
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2013) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 2.000 | 0.000 | 0.000 |
| (RN2045) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 2.000 | 3.000 | 1.000 |

MACH 0.382

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

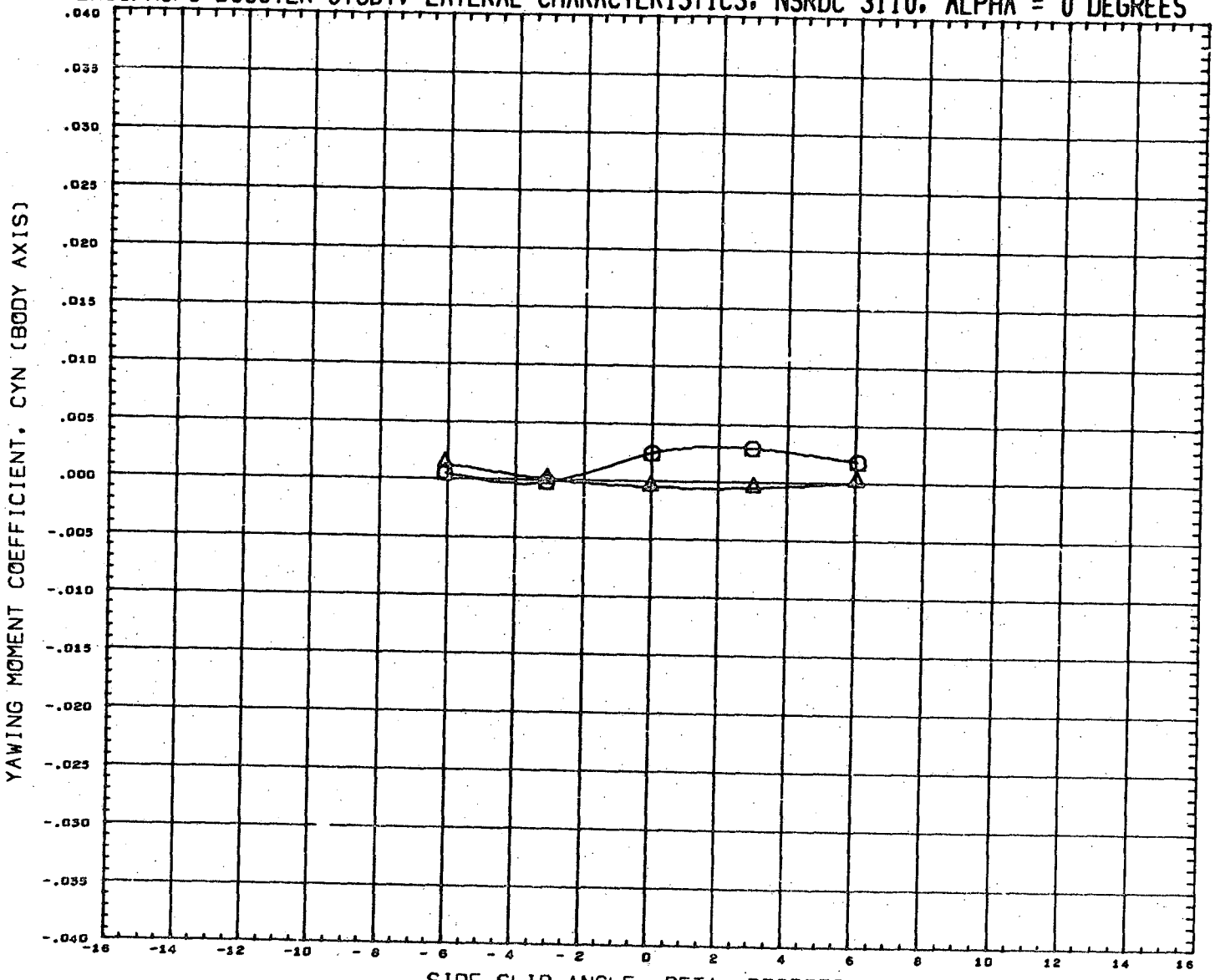



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2014) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 2.000 | 0.000 | 1.000 |
| (RN2046) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 2.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

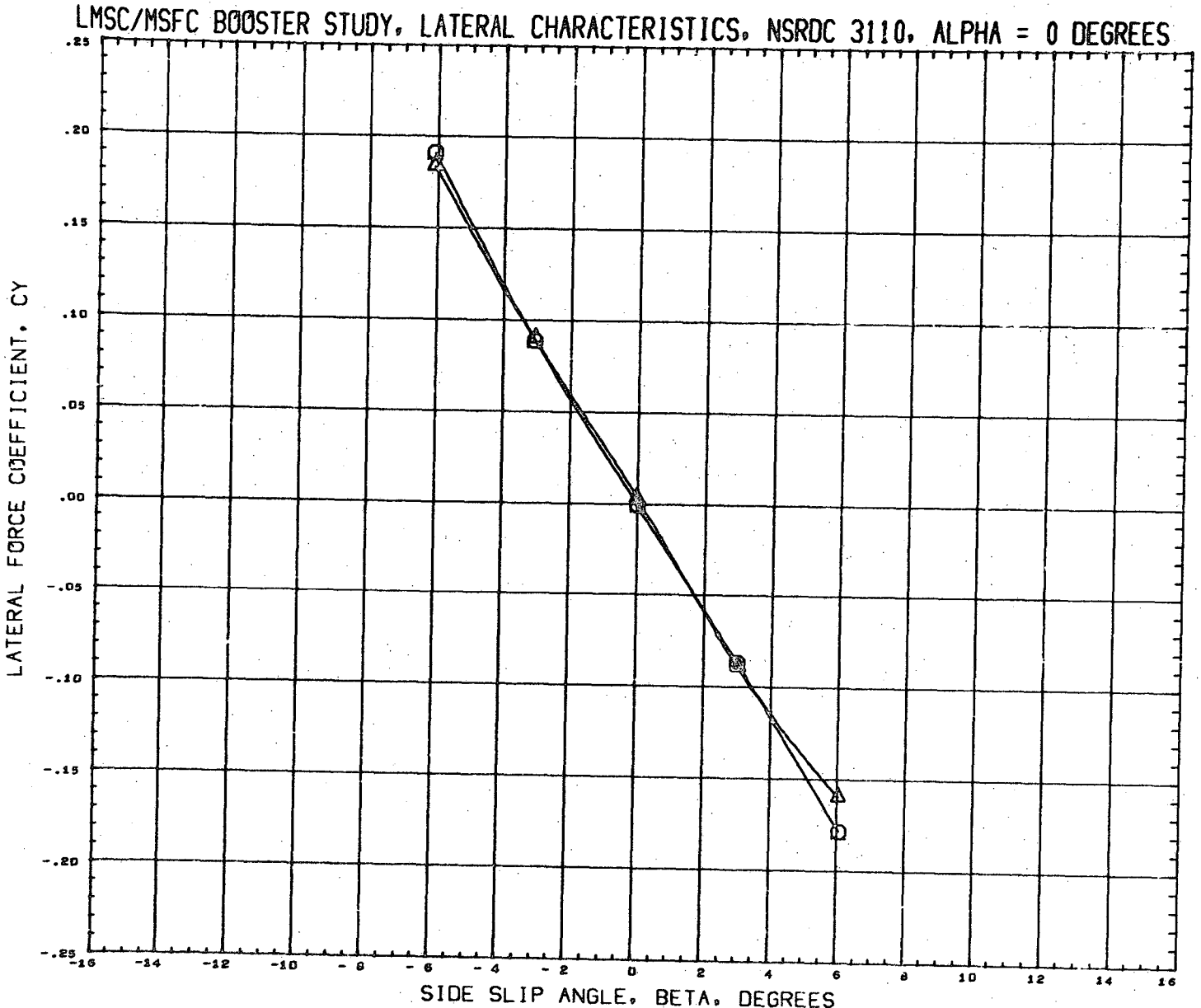
# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2014) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 2.000 | 0.000 | 1.000 |
| (RN2046) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 2.000 | 3.000 | 1.000 |

MACH 0.381

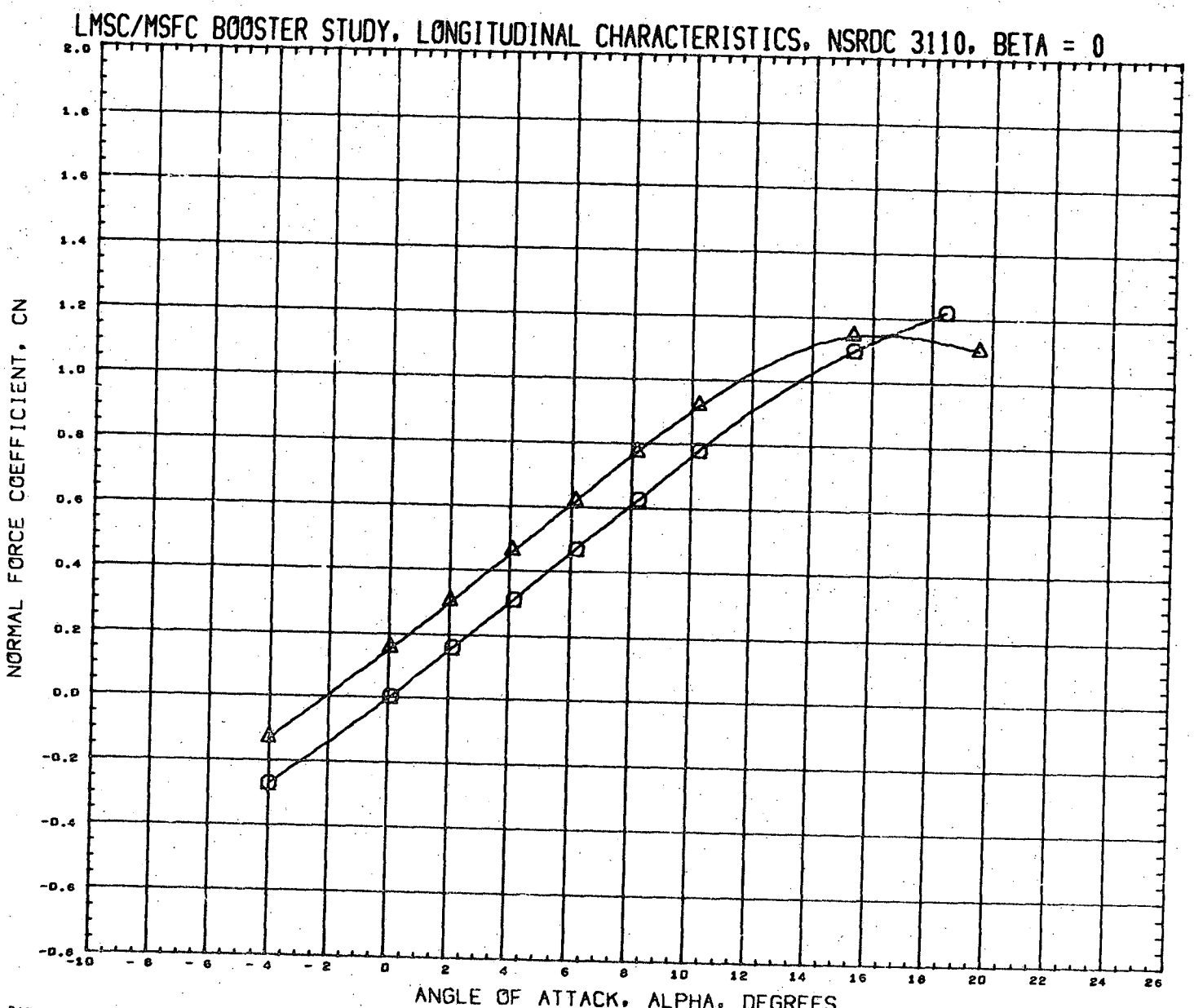
| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2D14) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 2.000 | 0.000 | 1.000 |
| (RN2D46) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 2.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

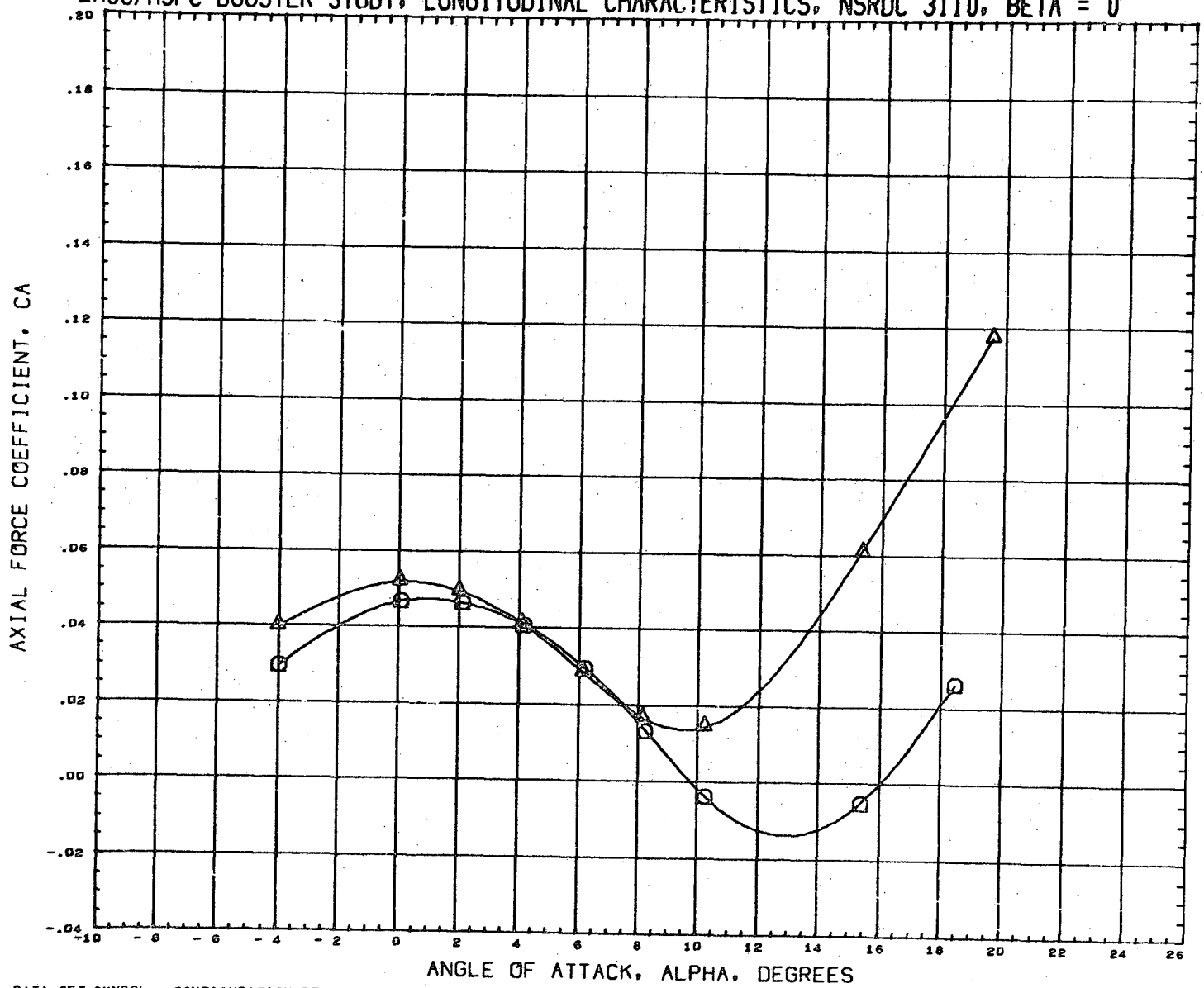



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2017) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 1.000 | 0.000 | 2.000 |
| (RN2049) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 1.000 | 3.000 | 2.000 |

MACH 0.382

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

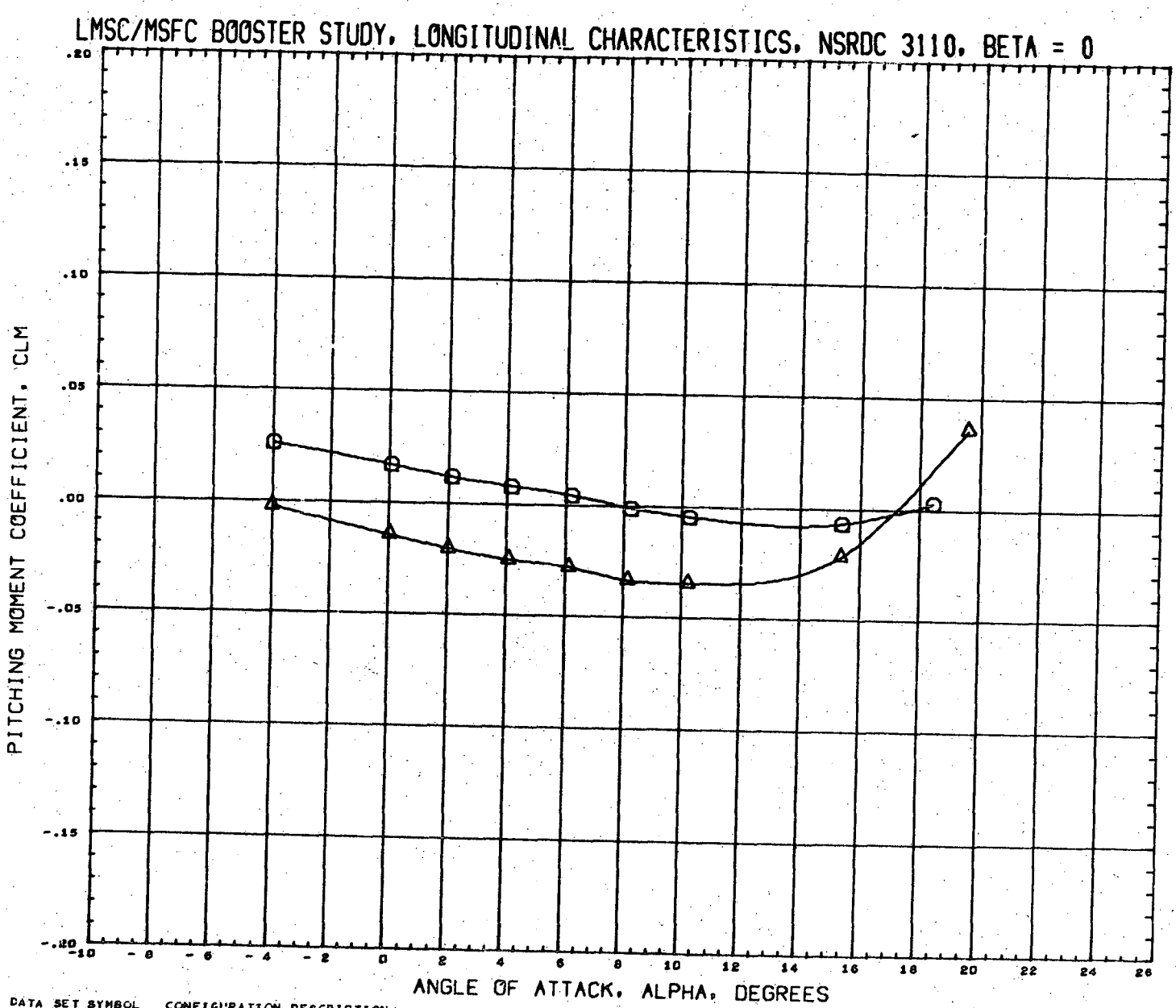
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2017) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 1.000 | 0.000 | 2.000 |
| (RN2049) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 1.000 | 3.000 | 2.000 |

MACH 0.382

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION |
|---|---|---|
| (RN2017) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 |
| (RN20◆◆) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 |

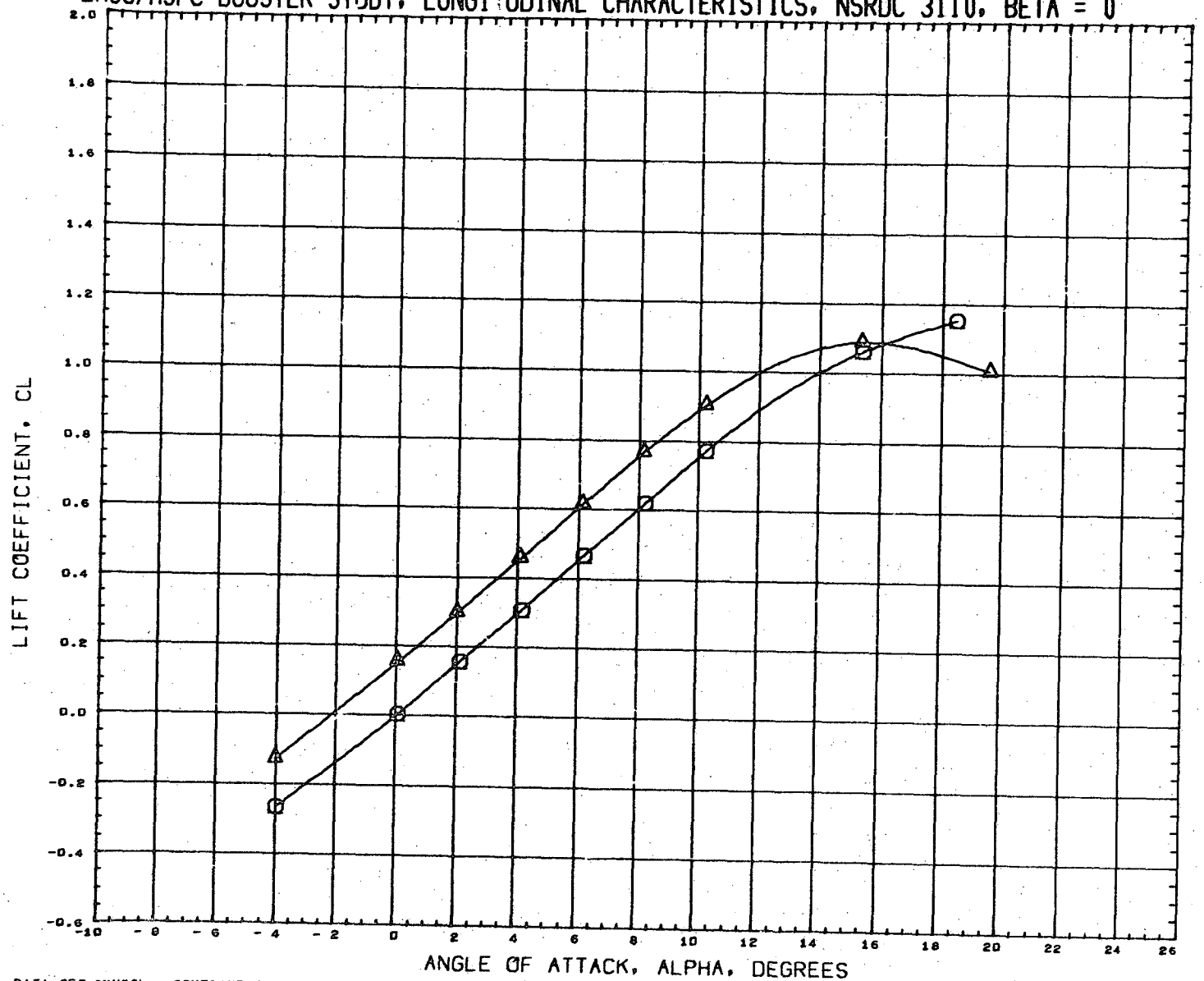
| INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|
| 3.000 | 1.000 | 0.000 | 2.000 |
| 3.000 | 1.000 | 3.000 | 2.000 |

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

MACH 0.382

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0



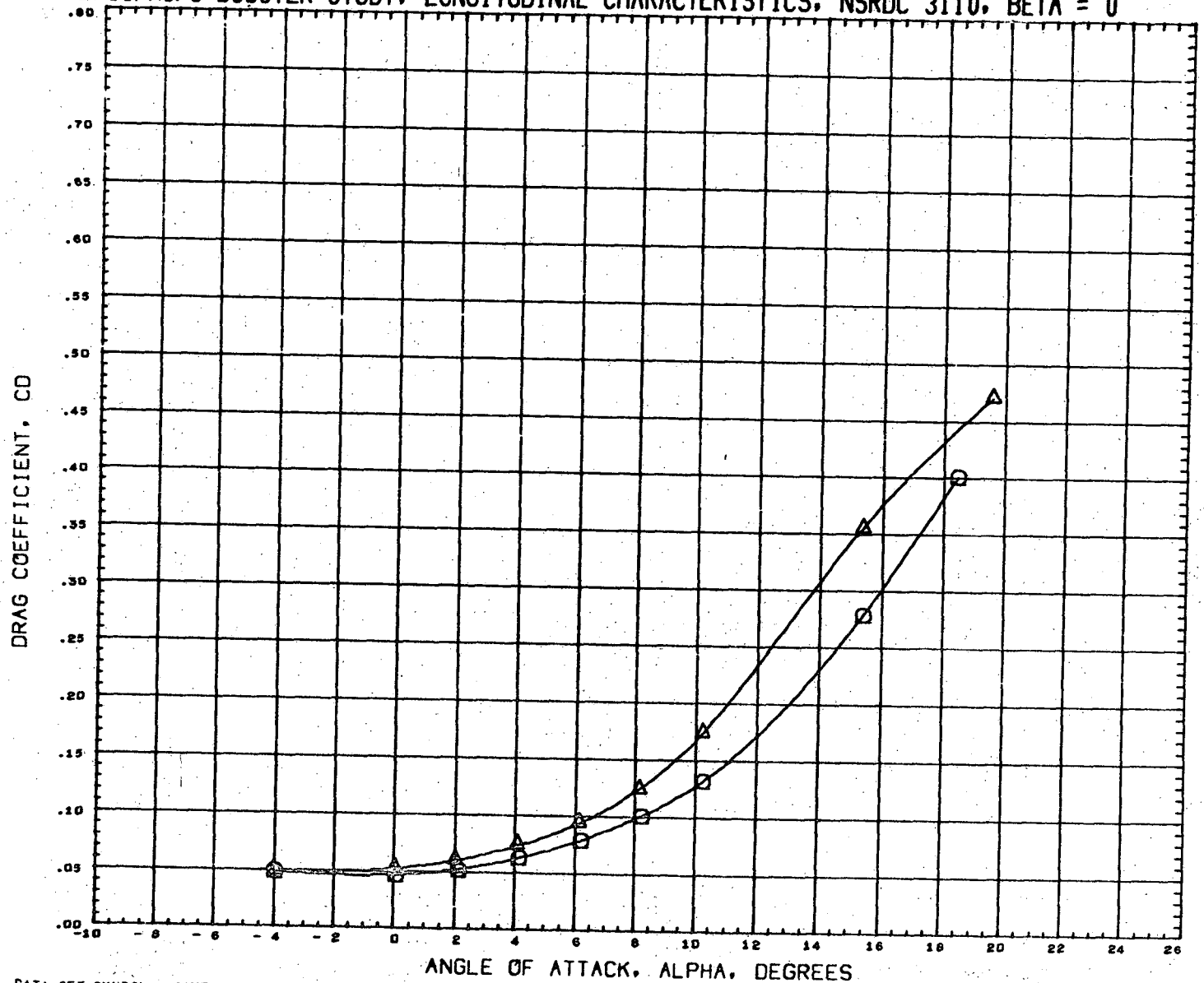

| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2017) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 1.000 | 0.000 | 2.000 |
| (RN2049) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 1.000 | 3.000 | 2.000 |

MACH 0.362

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

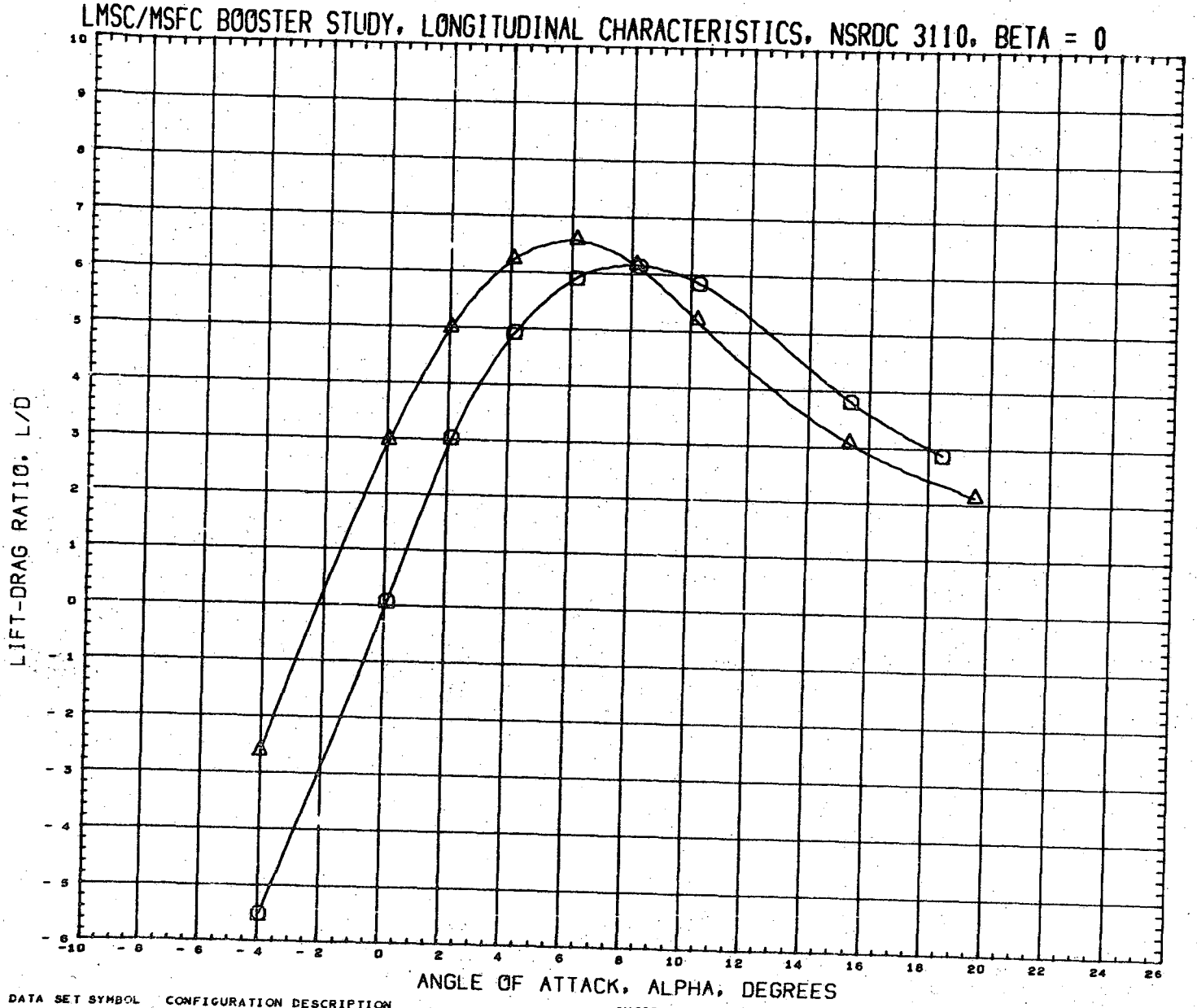
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2017) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 1.000 | 0.000 | 2.000 |
| (RN2049) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 1.000 | 3.000 | 2.000 |

MACH 0.382

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |



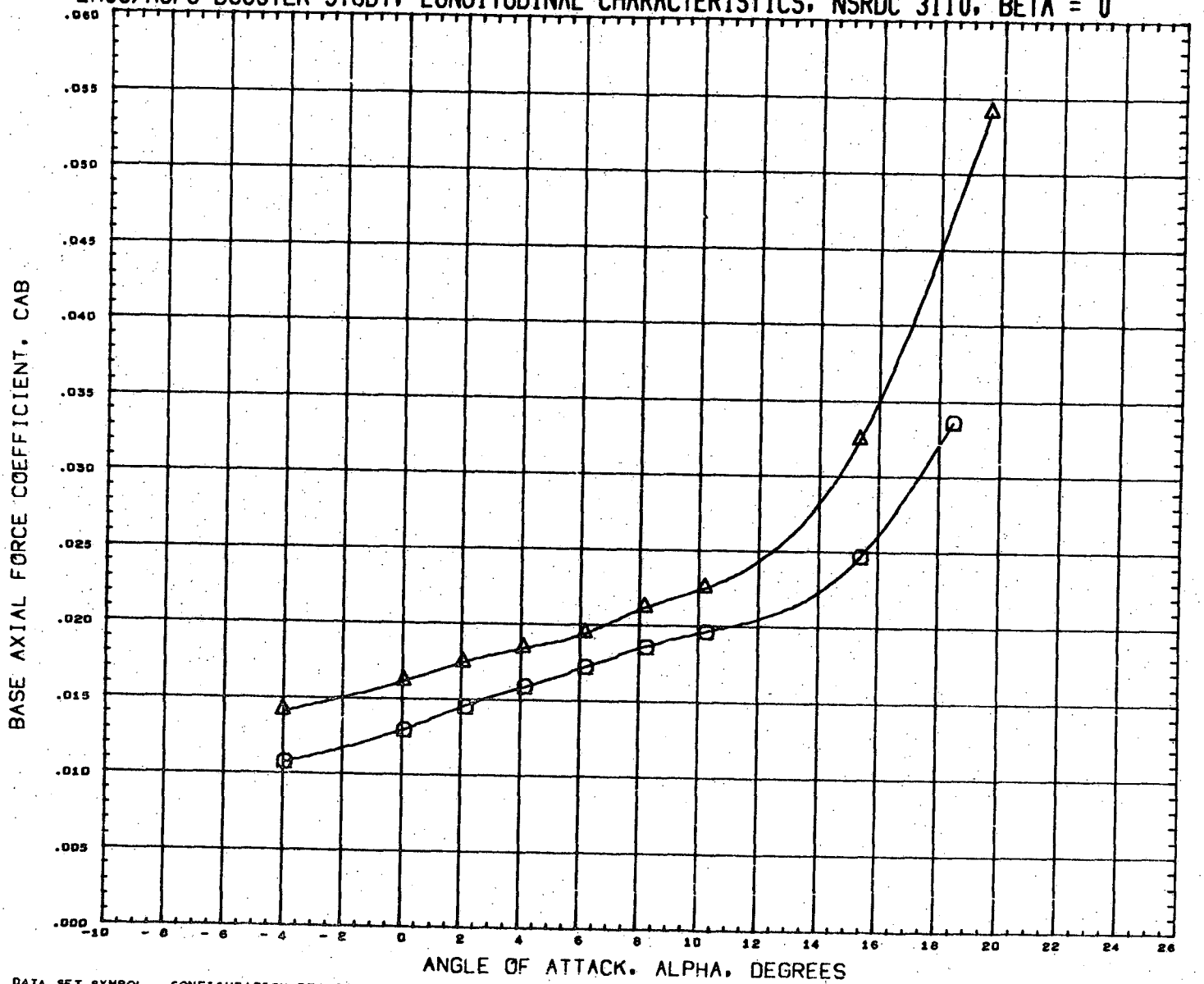

| DATA SET SYMBOL | CONFIGURATION DESCRIPTION |
|---|---|
| (RN2017) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 |
| (RN2049) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 |

| INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|
| 3.000 | 1.000 | 0.000 | 2.000 |
| 3.000 | 1.000 | 3.000 | 2.000 |

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

MACH 0.382

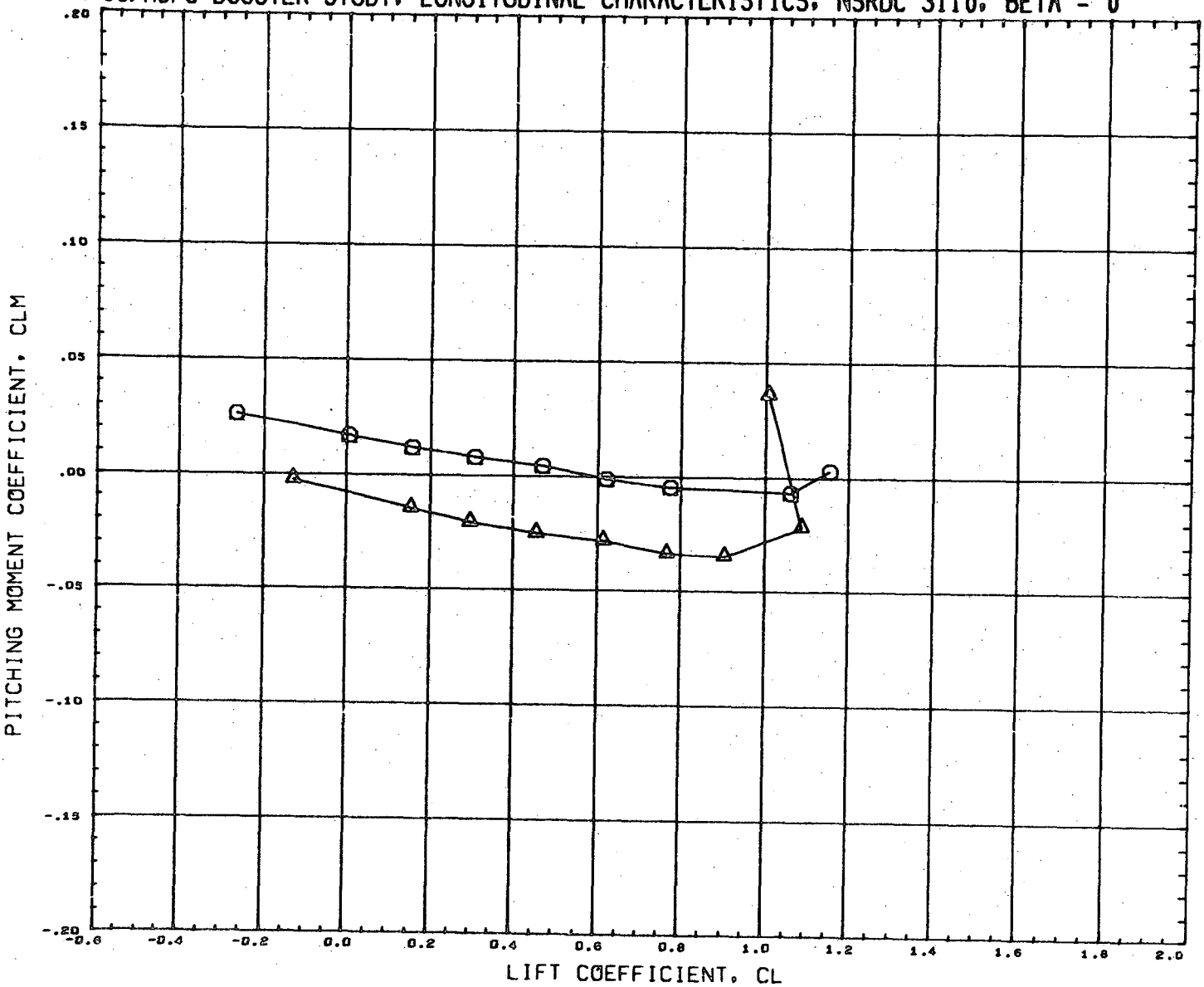



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2017) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 1.000 | 0.000 | 2.000 |
| (RN2049) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 1.000 | 3.000 | 2.000 |

MACH 0.362

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0



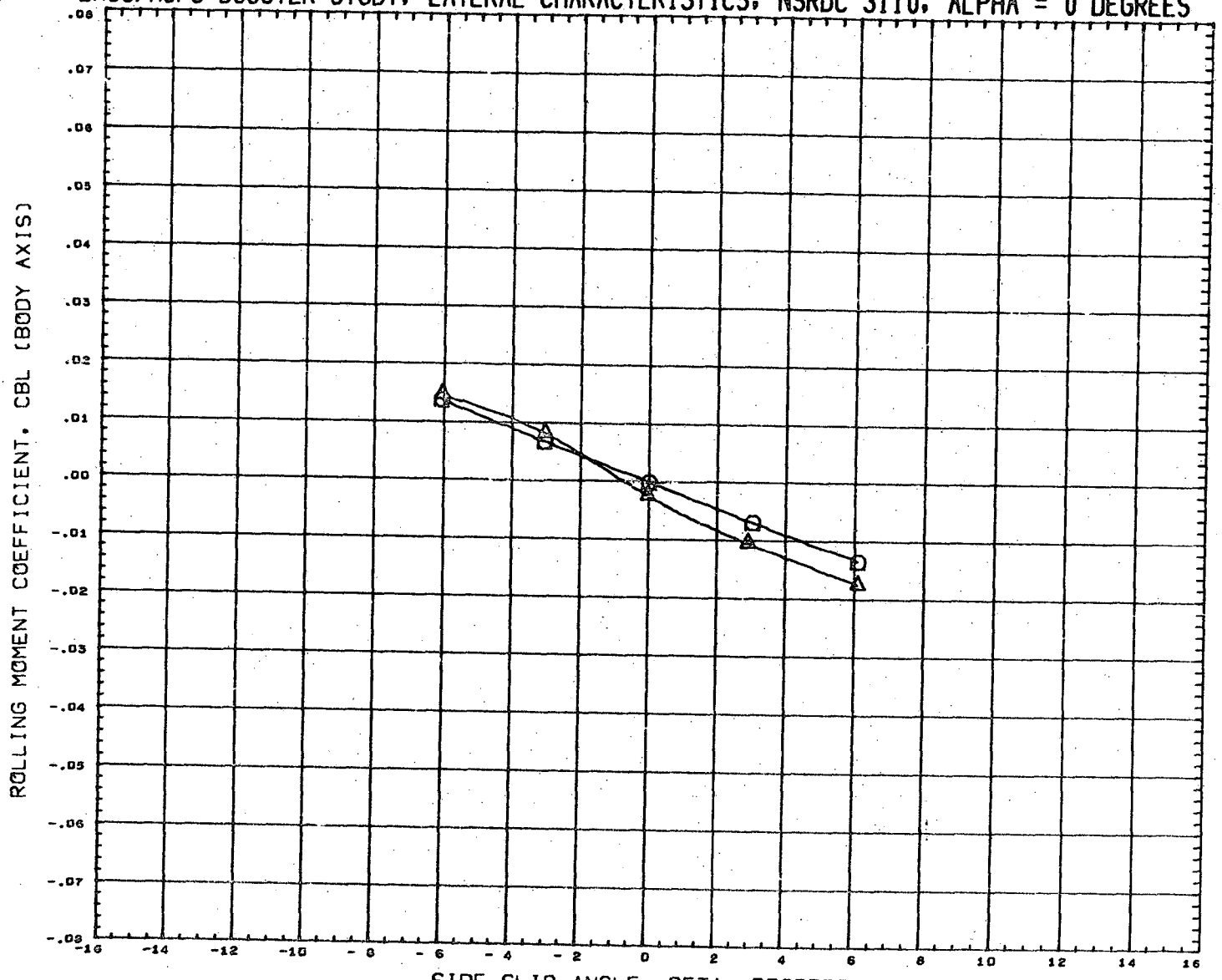

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2017) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 1.000 | 0.000 | 2.000 |
| (RN2049) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 1.000 | 3.000 | 2.000 |

MACH 0.362

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

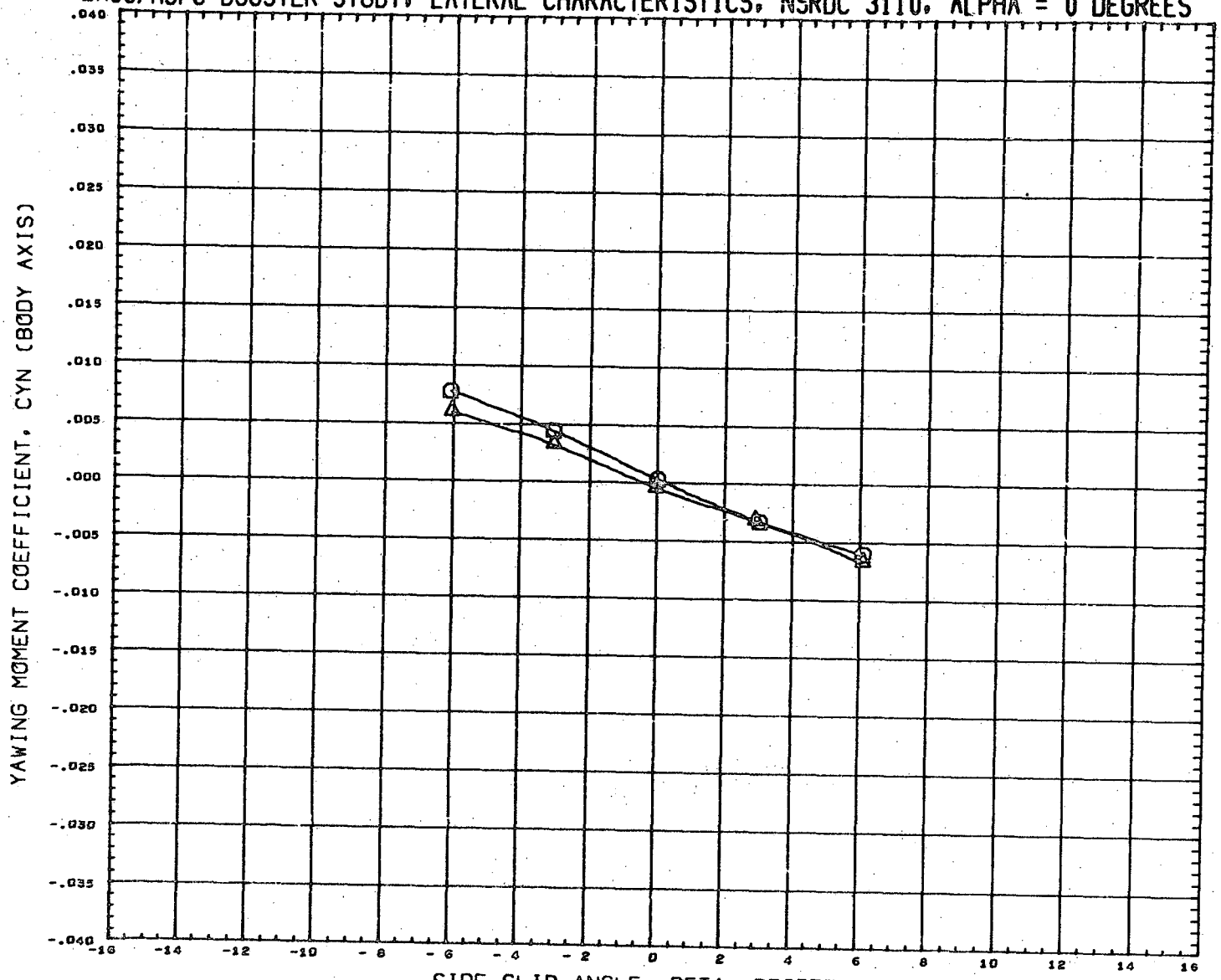



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2018) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 1.000 | 0.000 | 2.000 |
| (RN2050) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 1.000 | 3.000 | 2.000 |

MACH 0.581

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BØØSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

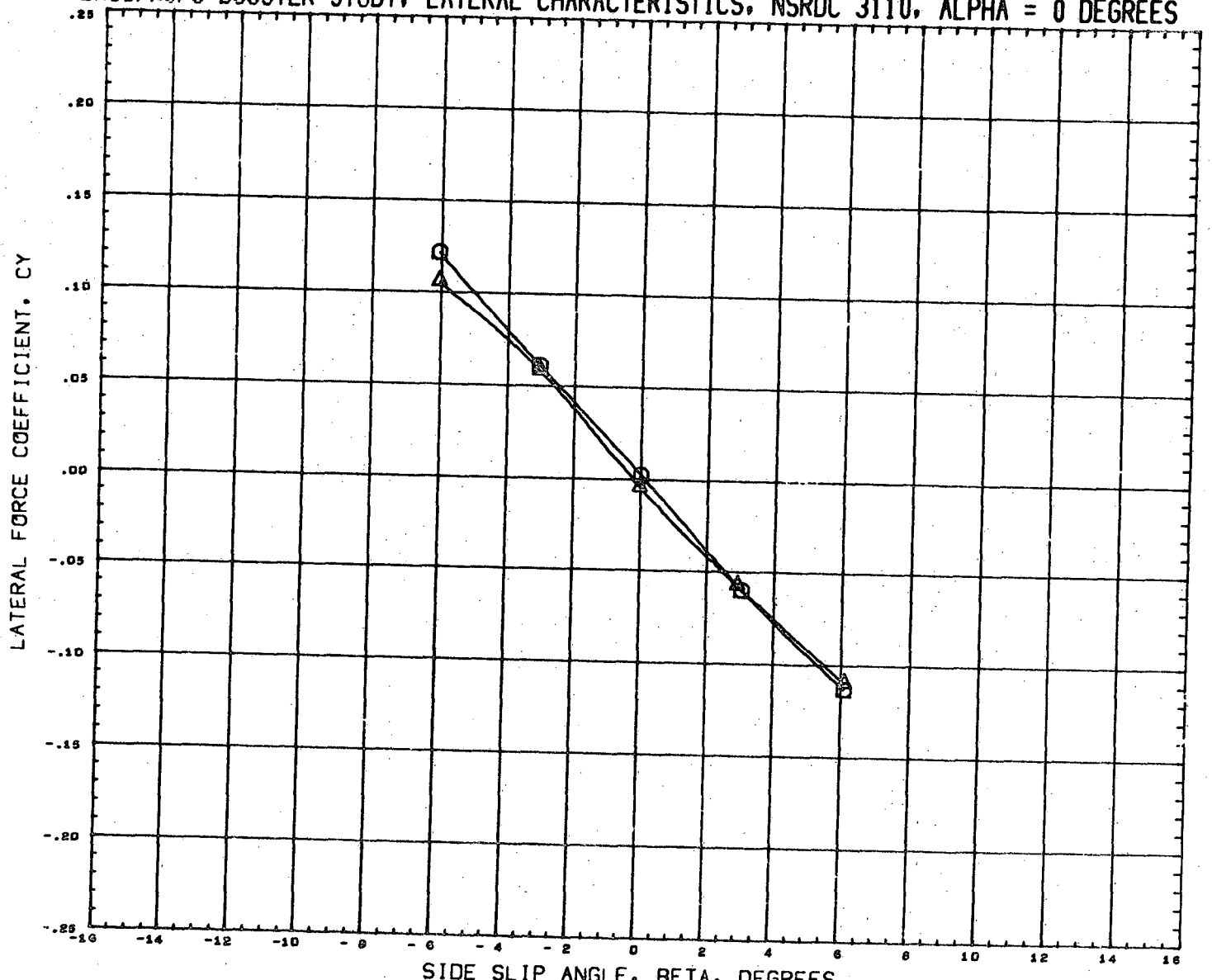



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2018) | Ø | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 1.000 | 0.000 | 2.000 |
| (RN2050) | Δ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 1.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

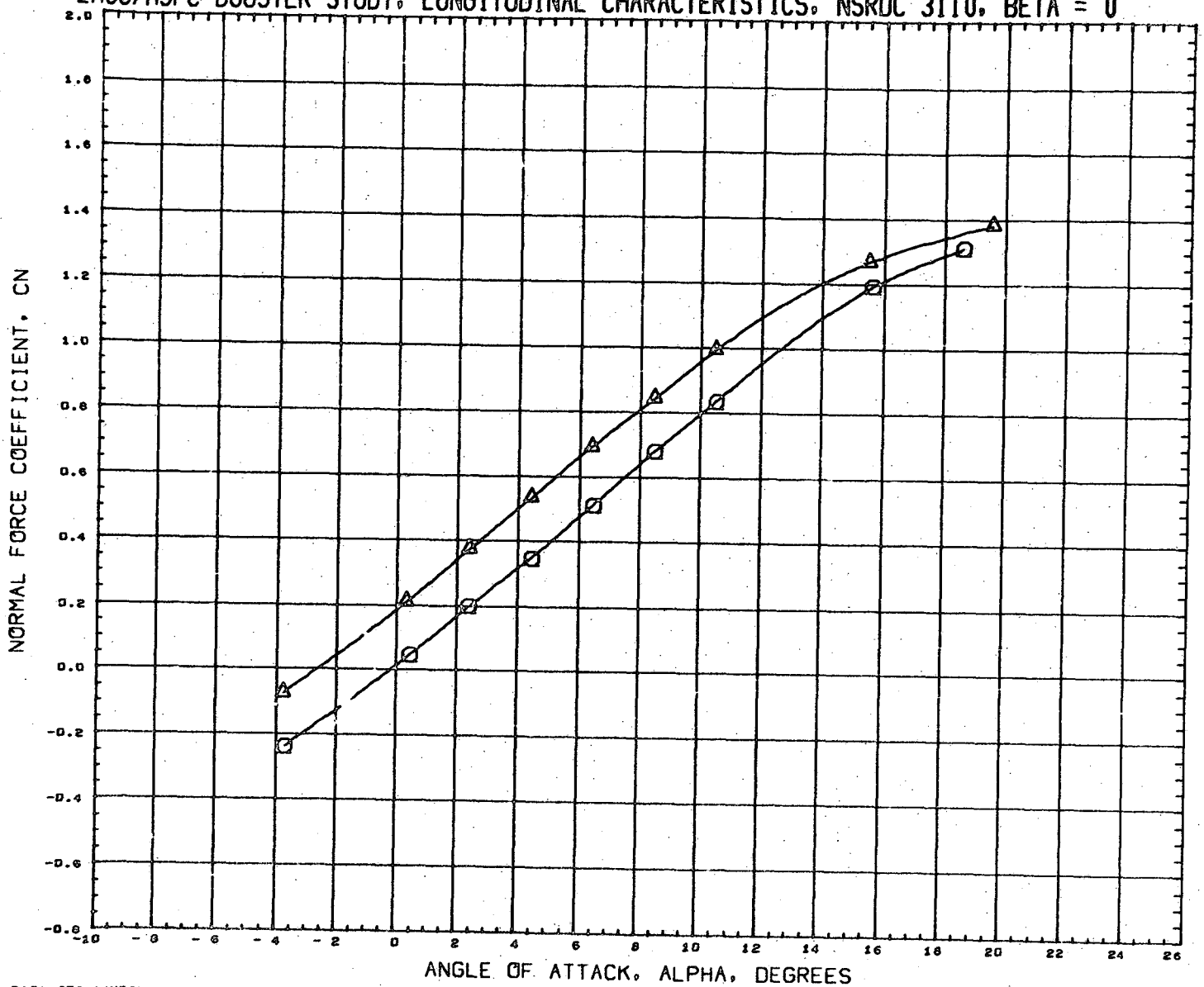



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2018) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 1.000 | 0.000 | 2.000 |
| (RN2050) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 1.000 | 3.000 | 2.000 |

MACH 0.361

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

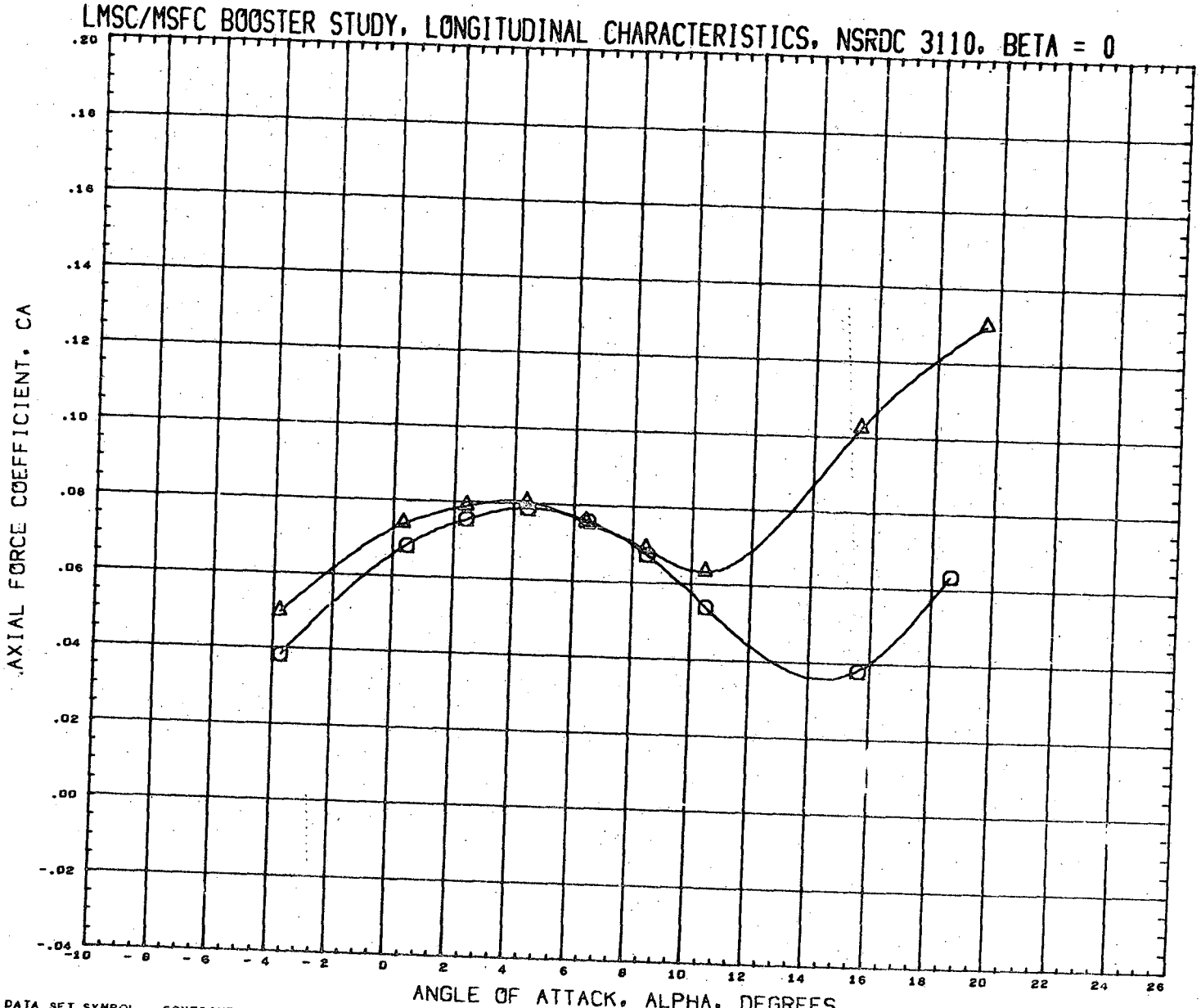
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2021) ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 1.000 | 0.000 | 2.000 |
| (RN2053) △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 1.000 | 3.000 | 2.000 |

MACH 0.382

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |




| DATA SET SYMBOL | CONFIGURATION DESCRIPTION |
|---|---|
| (RN2021) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 |
| (RN2053) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 |

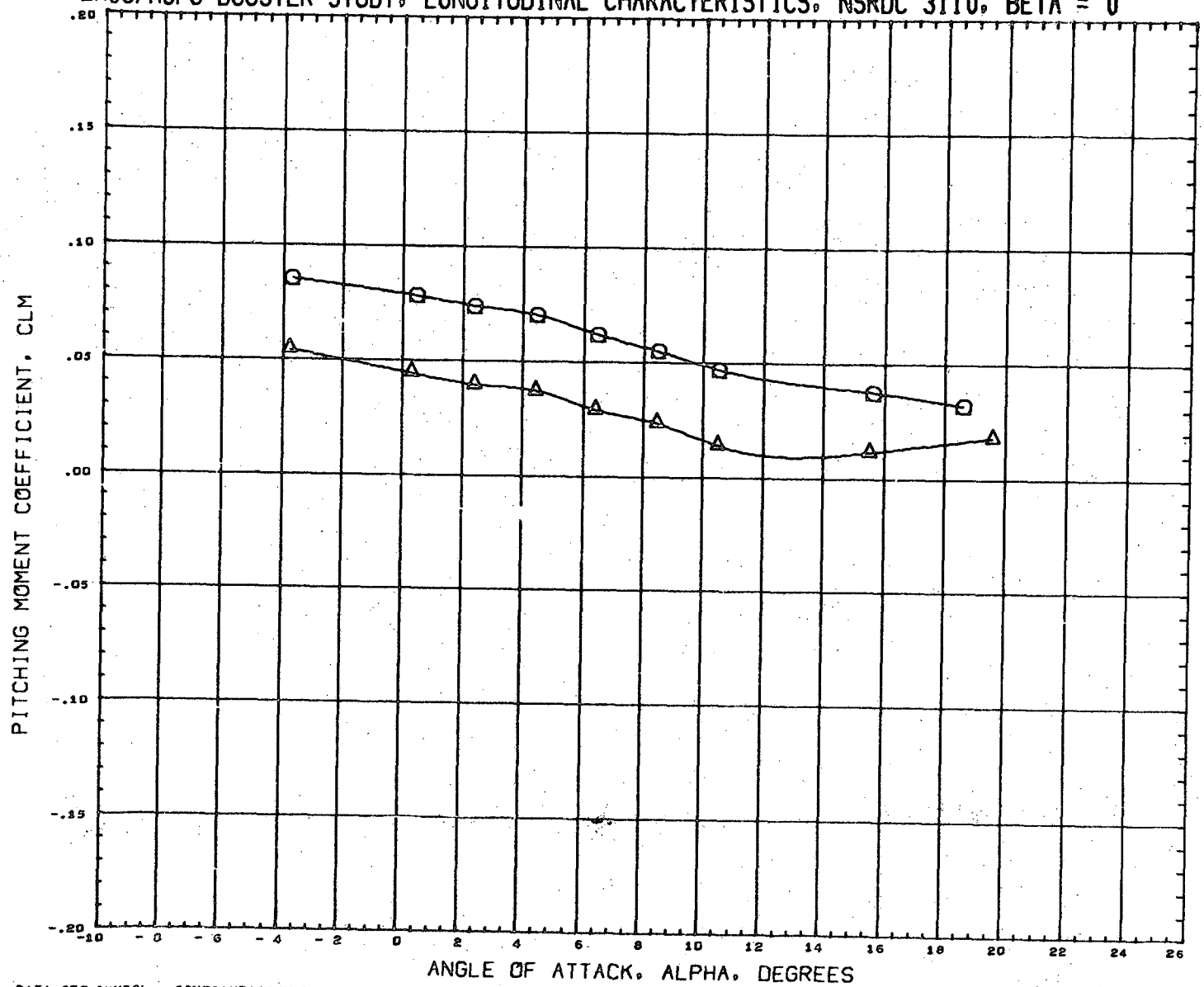
| INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|
| 15.000 | 1.000 | 0.000 | 2.000 |
| 15.000 | 1.000 | 3.000 | 2.000 |

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

MACH 0.302

LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

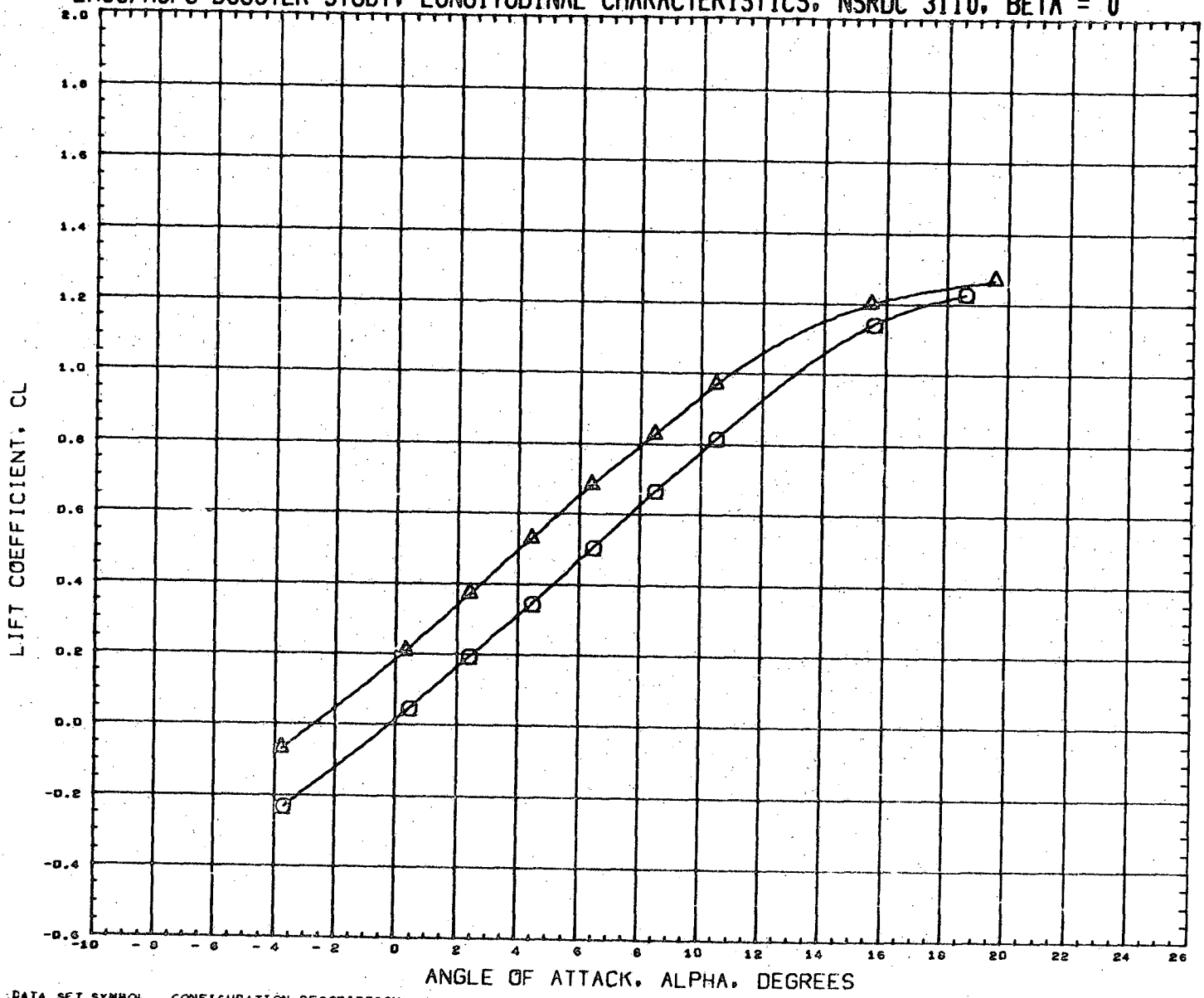



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2021) ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 1.000 | 0.000 | 2.000 |
| (RN2053) △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 1.000 | 3.000 | 2.000 |

MACH 0.382

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

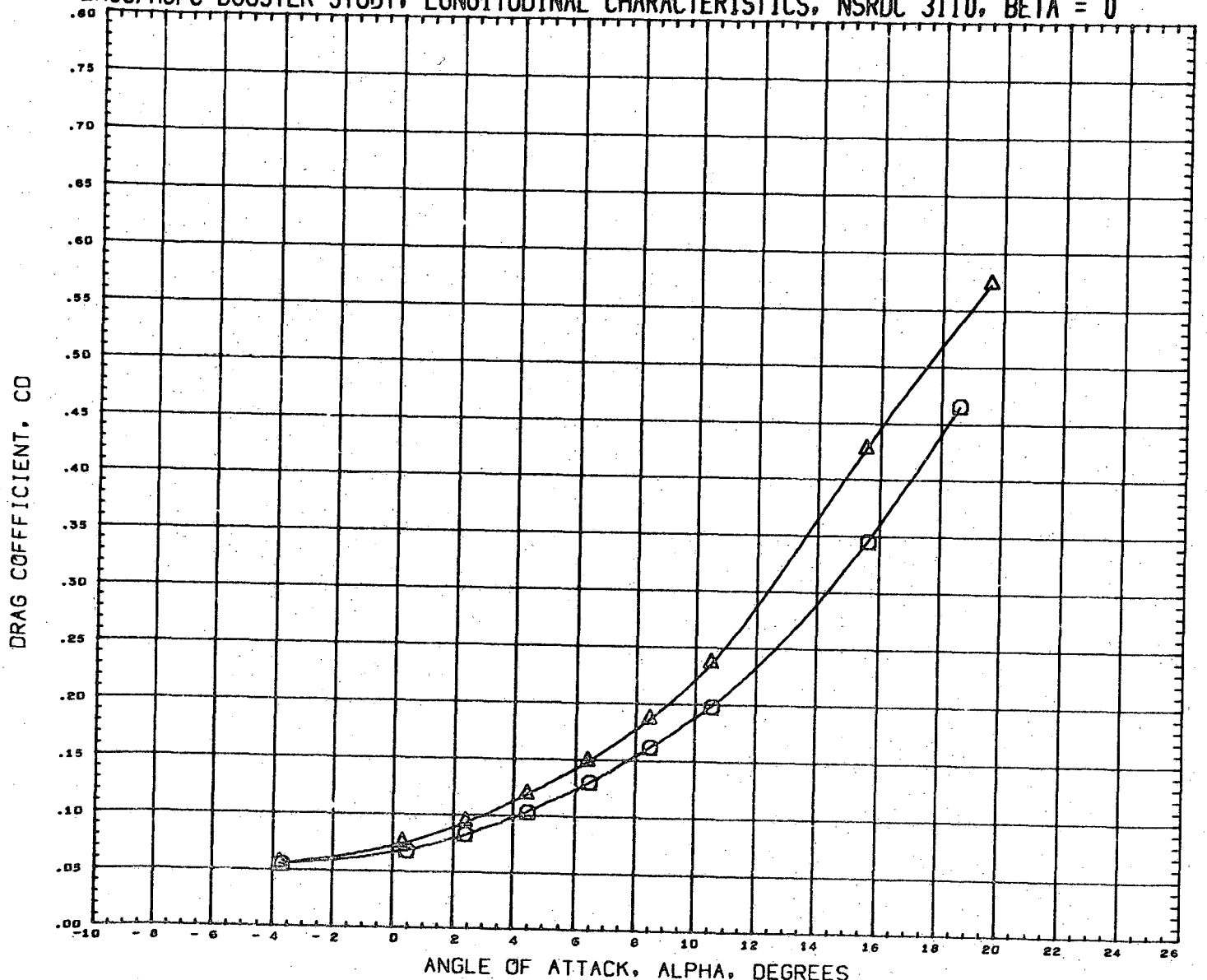



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2021) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 1.000 | 0.000 | 2.000 |
| (RN2053) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 1.000 | 3.000 | 2.000 |

MACH 0.382

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0



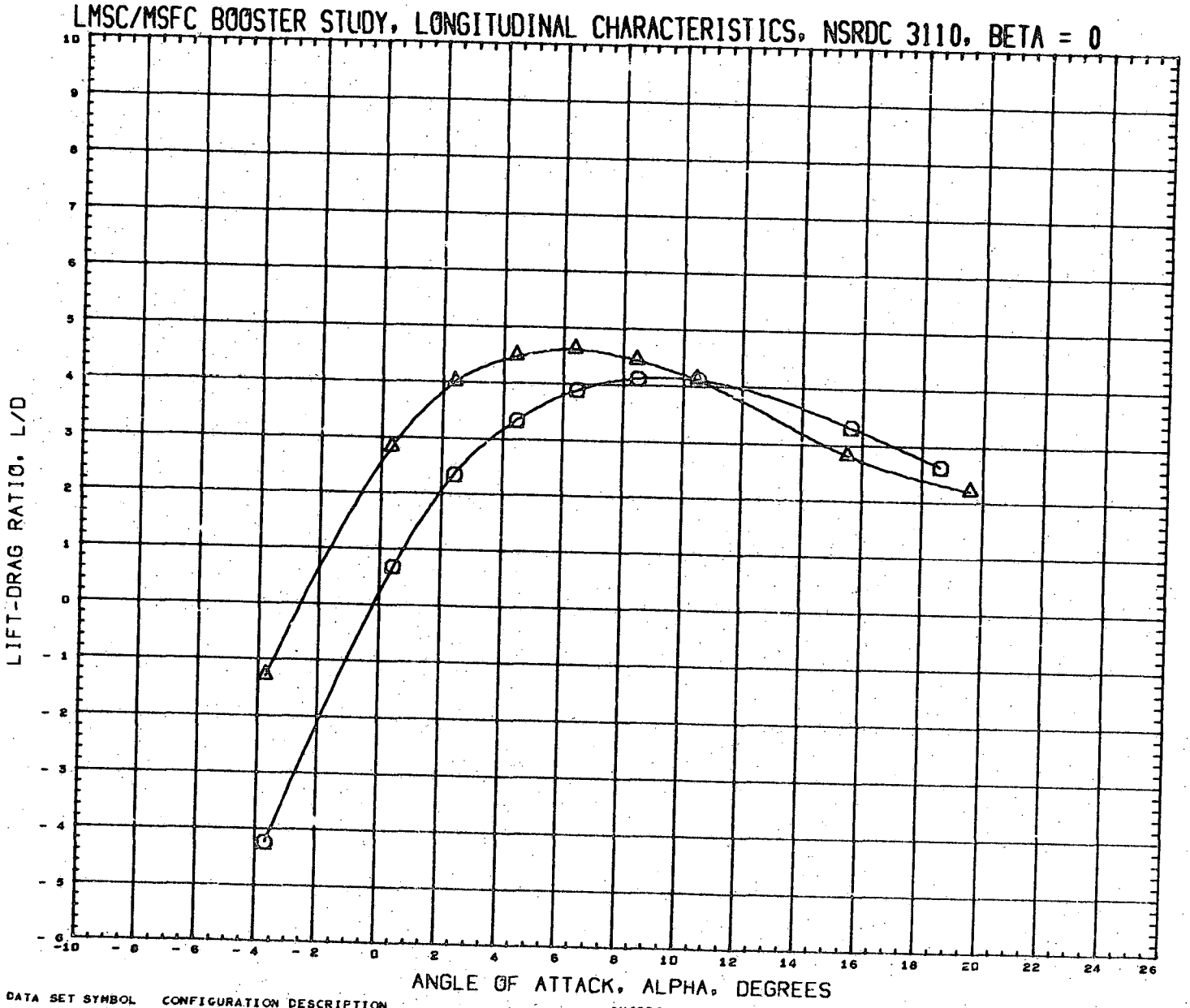

| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION |
|---|---|---|
| (RN2021) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 |
| (RN2053) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 |

| INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|
| 15.000 | 1.300 | 0.000 | 2.000 |
| 15.000 | 1.000 | 3.000 | 2.000 |

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

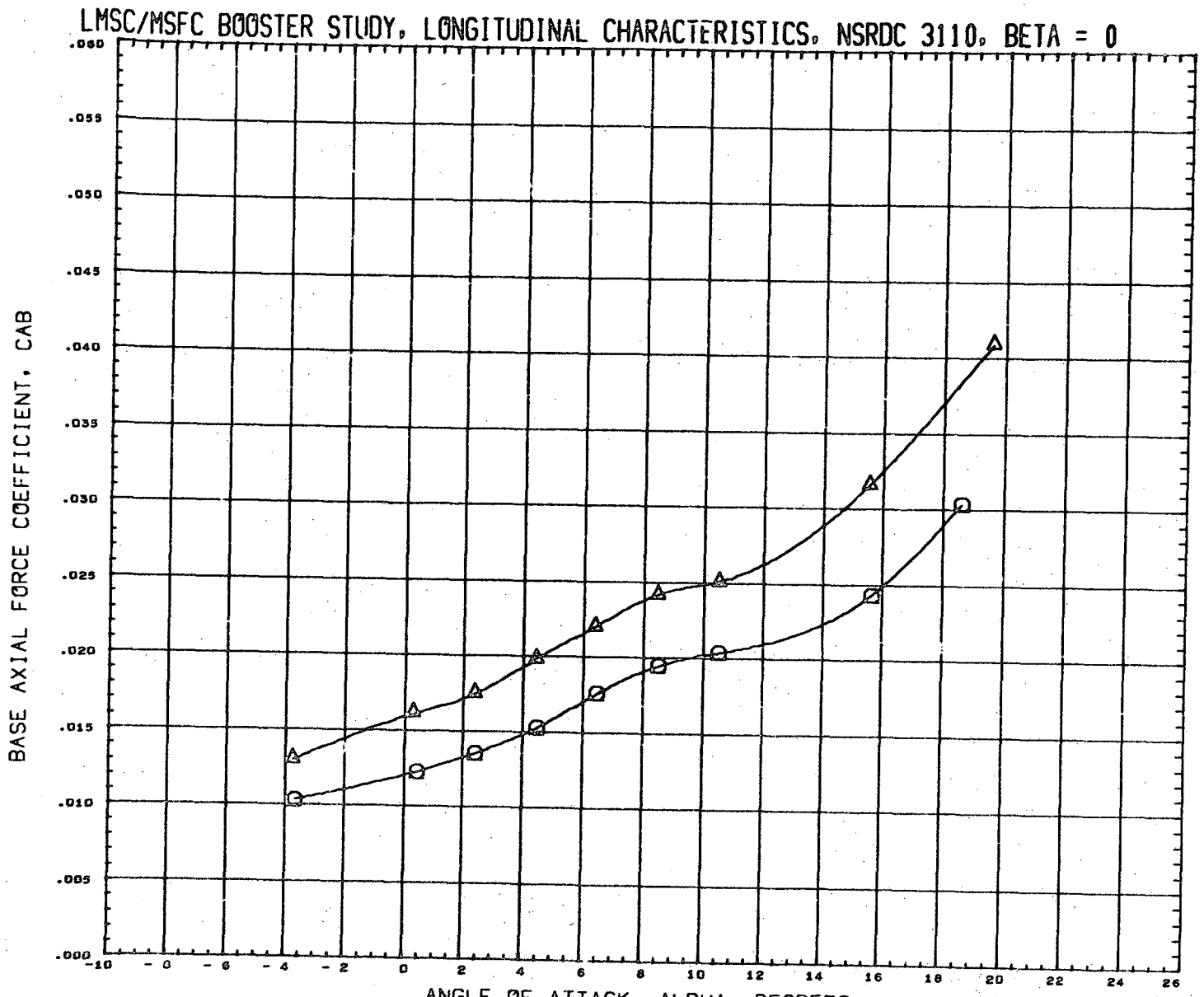
MACH 0.382




| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2021) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 1.000 | 0.000 | 2.000 |
| (RN2053) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 1.000 | 3.000 | 2.000 |

MACH 0.382

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION |
|---|---|---|
| (RN2021) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 |
| (RN2053) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 |

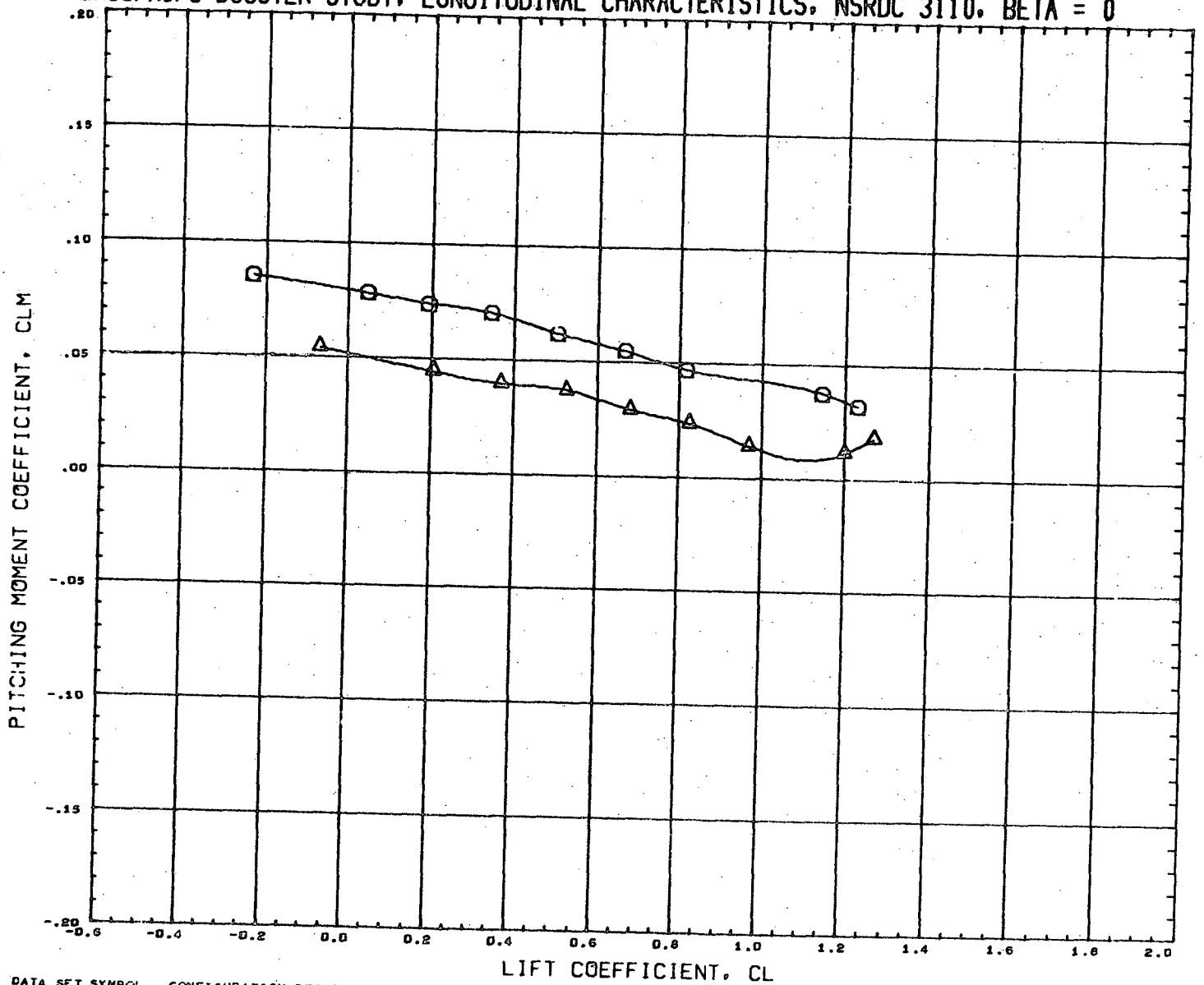
| INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|
| 15.000 | 1.000 | 0.000 | 2.000 |
| 15.000 | 1.000 | 3.000 | 2.000 |

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

MACH 0.362

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

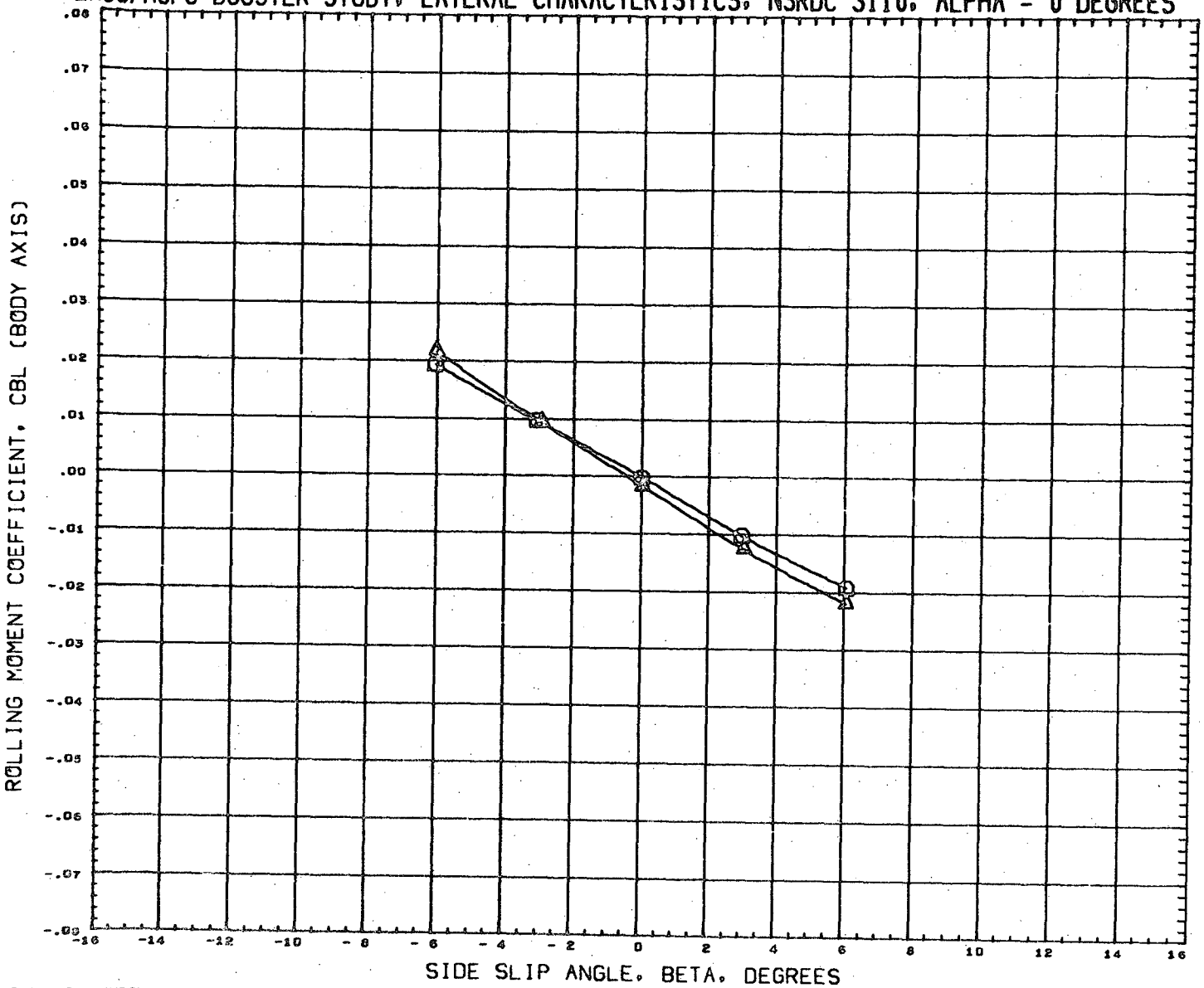



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2021) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 1.000 | 0.000 | 2.000 |
| (RN2053) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 1.000 | 3.000 | 2.000 |

MACH 0.382

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

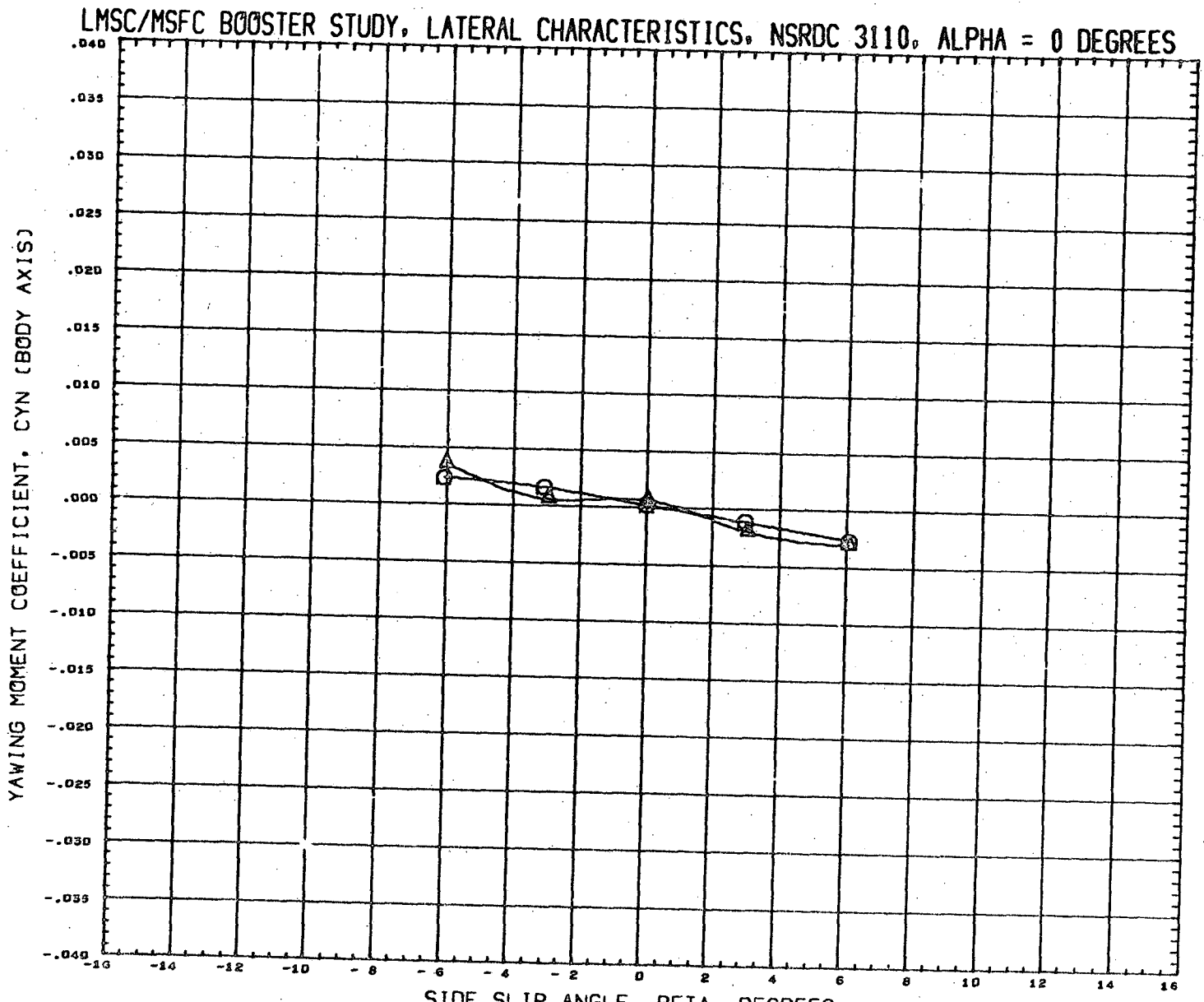
LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES




| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2022) ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 1.000 | 0.000 | 2.000 |
| (RN2054) △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 1.000 | 3.000 | 2.000 |

MACH 0.381

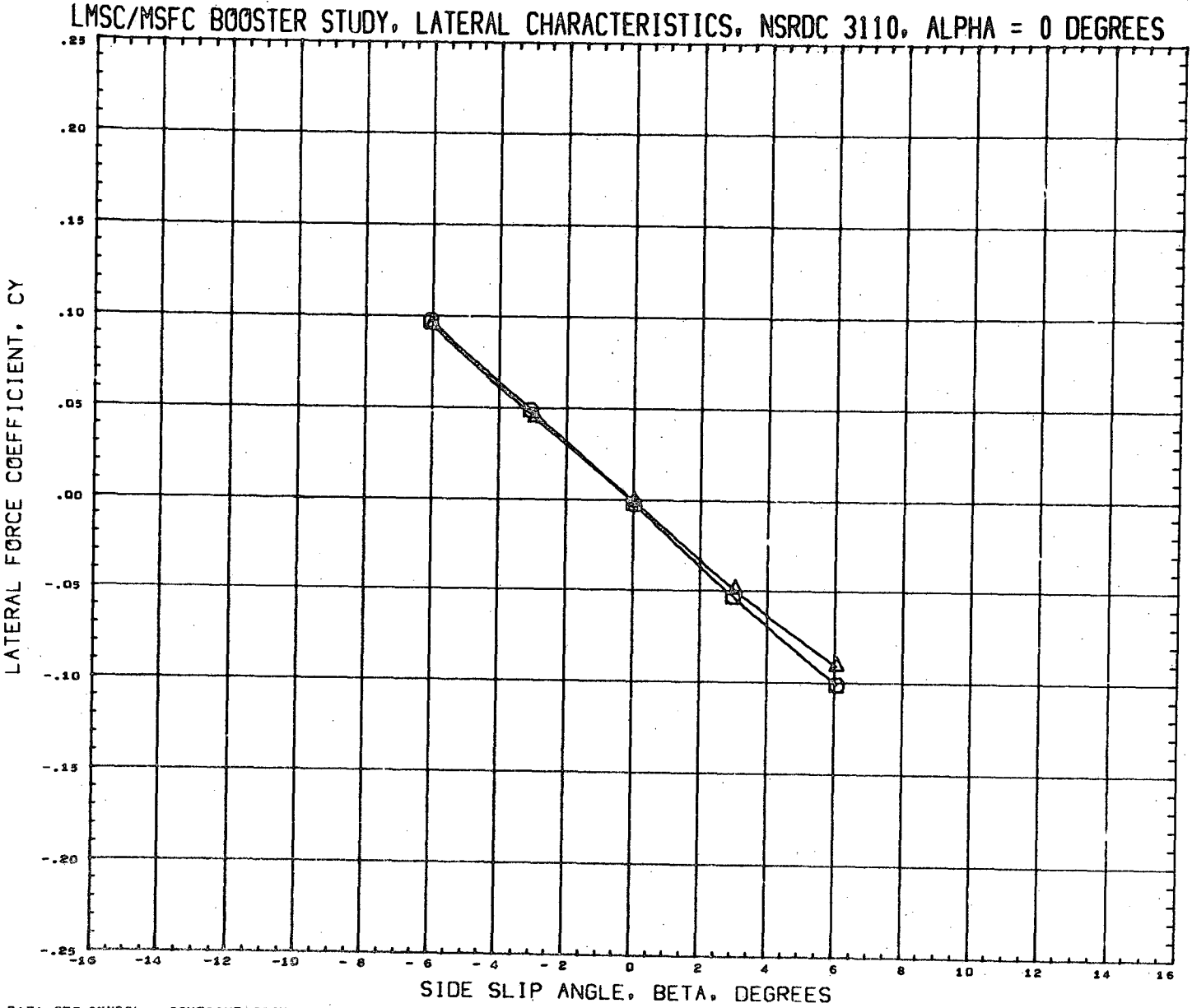
| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |




| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2022) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 1.000 | 0.000 | 2.000 |
| (RN2054) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 1.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

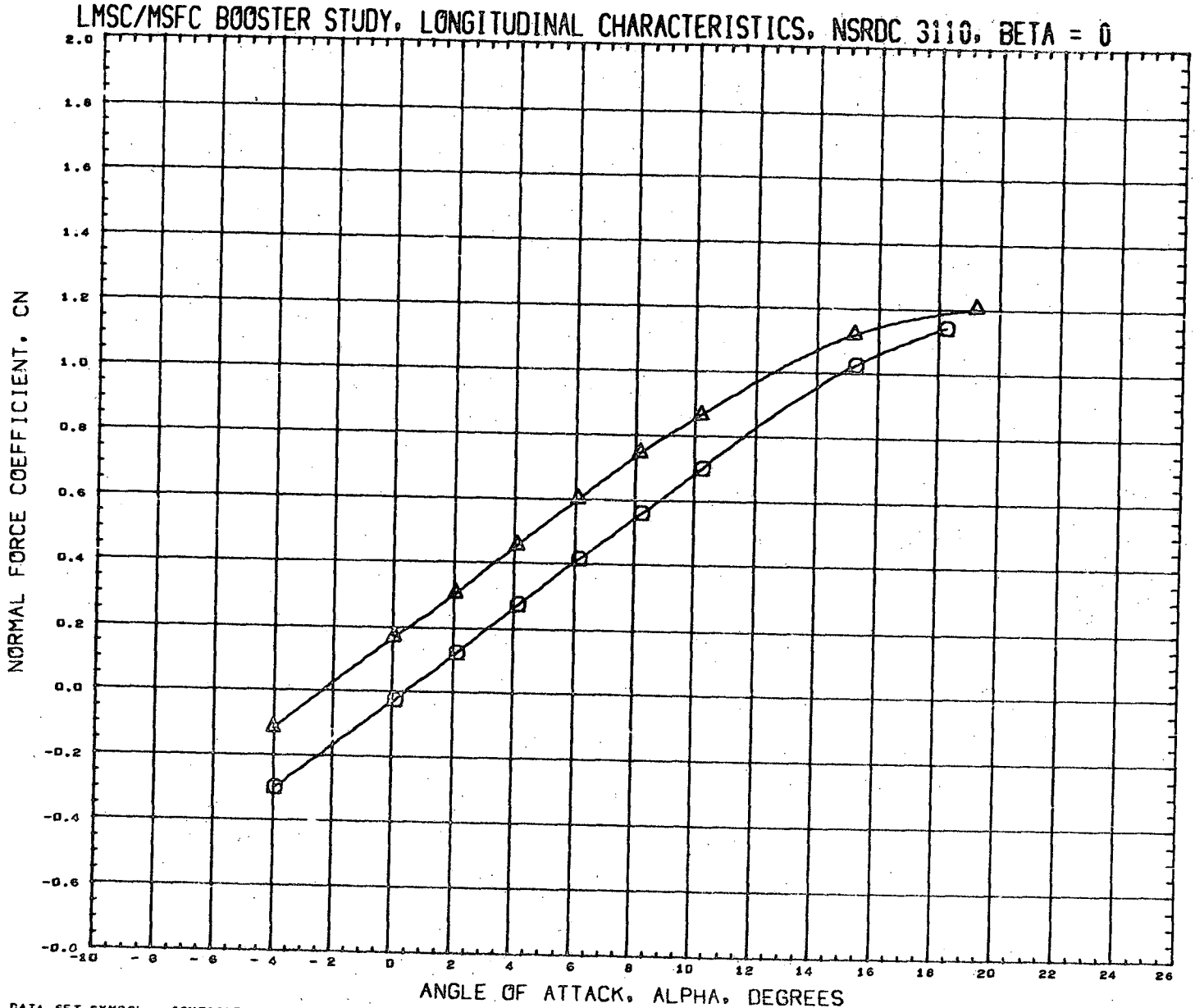



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2022) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 1.000 | 0.000 | 2.000 |
| (RN2054) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 1.000 | 3.000 | 2.000 |

MACH 0.381

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

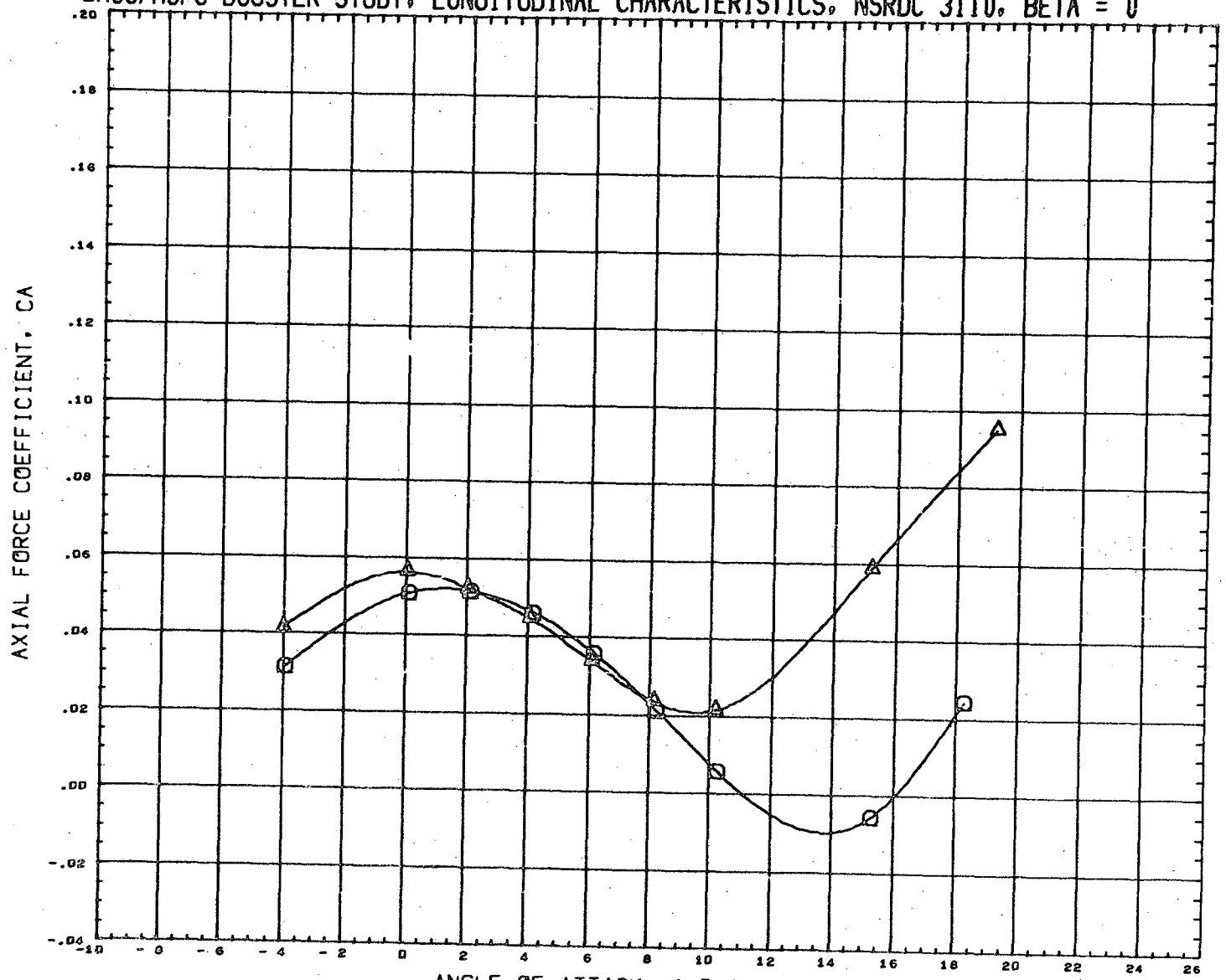



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2025) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 2.000 | 0.000 | 2.000 |
| (RN2057) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 2.000 | 3.000 | 2.000 |

MACH 0.362

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION |
|---|---|---|
| (RN2025) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 |
| (RN2057) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 |

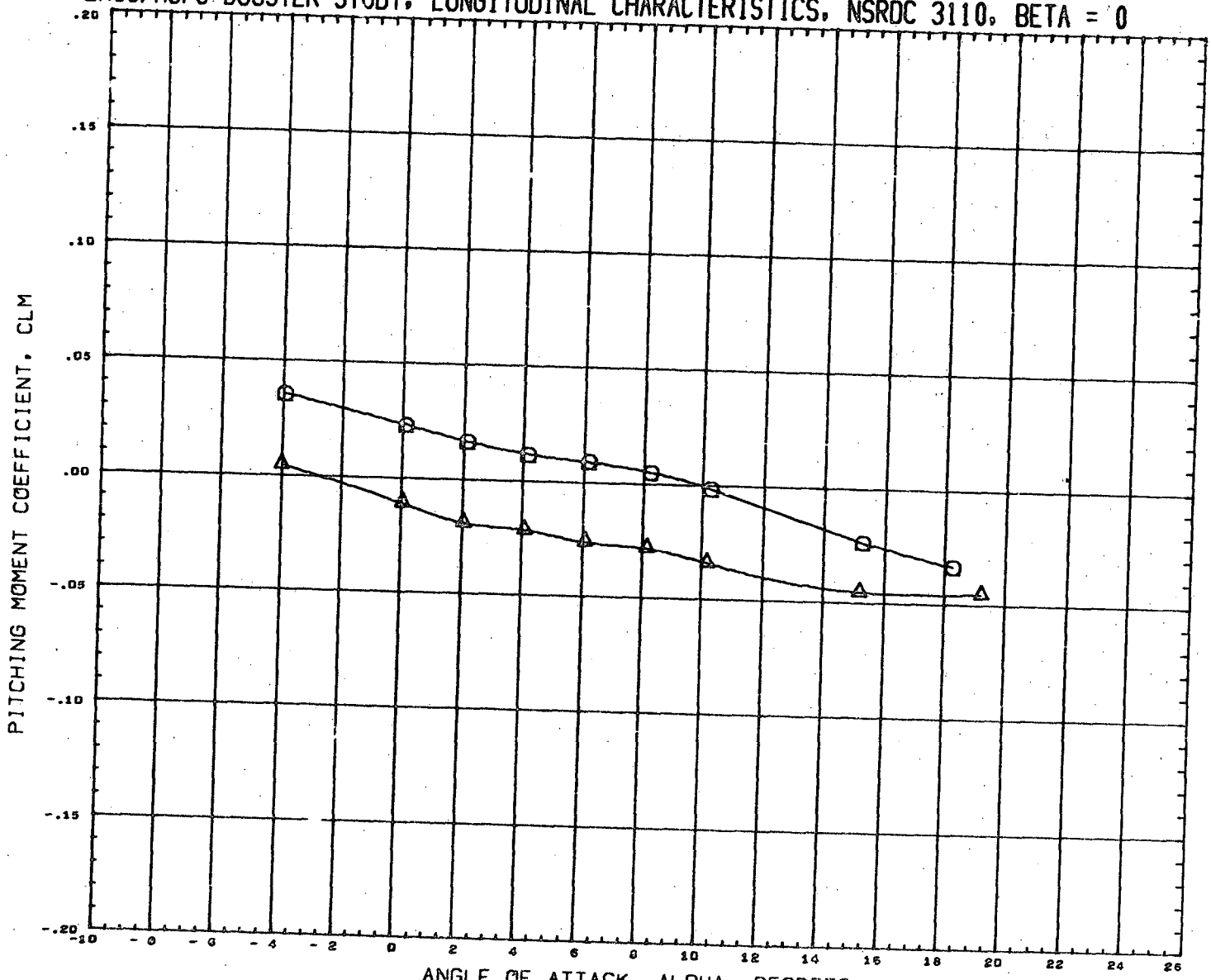
| INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|
| 3.000 | 2.000 | 0.000 | 2.000 |
| 3.000 | 2.000 | 3.000 | 2.000 |

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

MACH 0.382

LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | CONFIGURATION DESCRIPTION |
|---|---|
| (RN2025) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1\1 |
| (RN2057) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 |

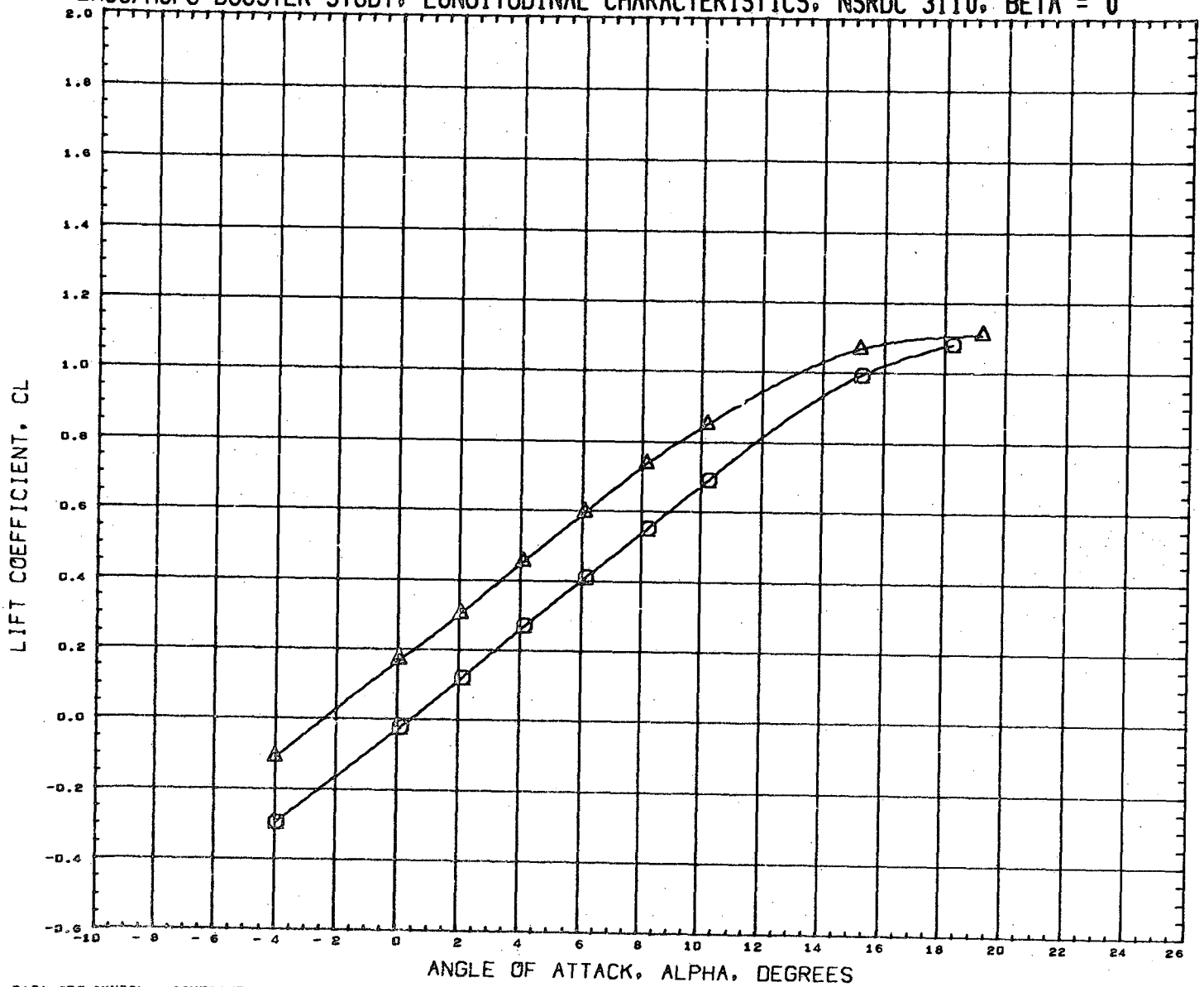
| INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|
| 3.000 | 2.000 | 0.000 | 2.000 |
| 3.000 | 2.000 | 3.000 | 2.000 |

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

MACH 0.382

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

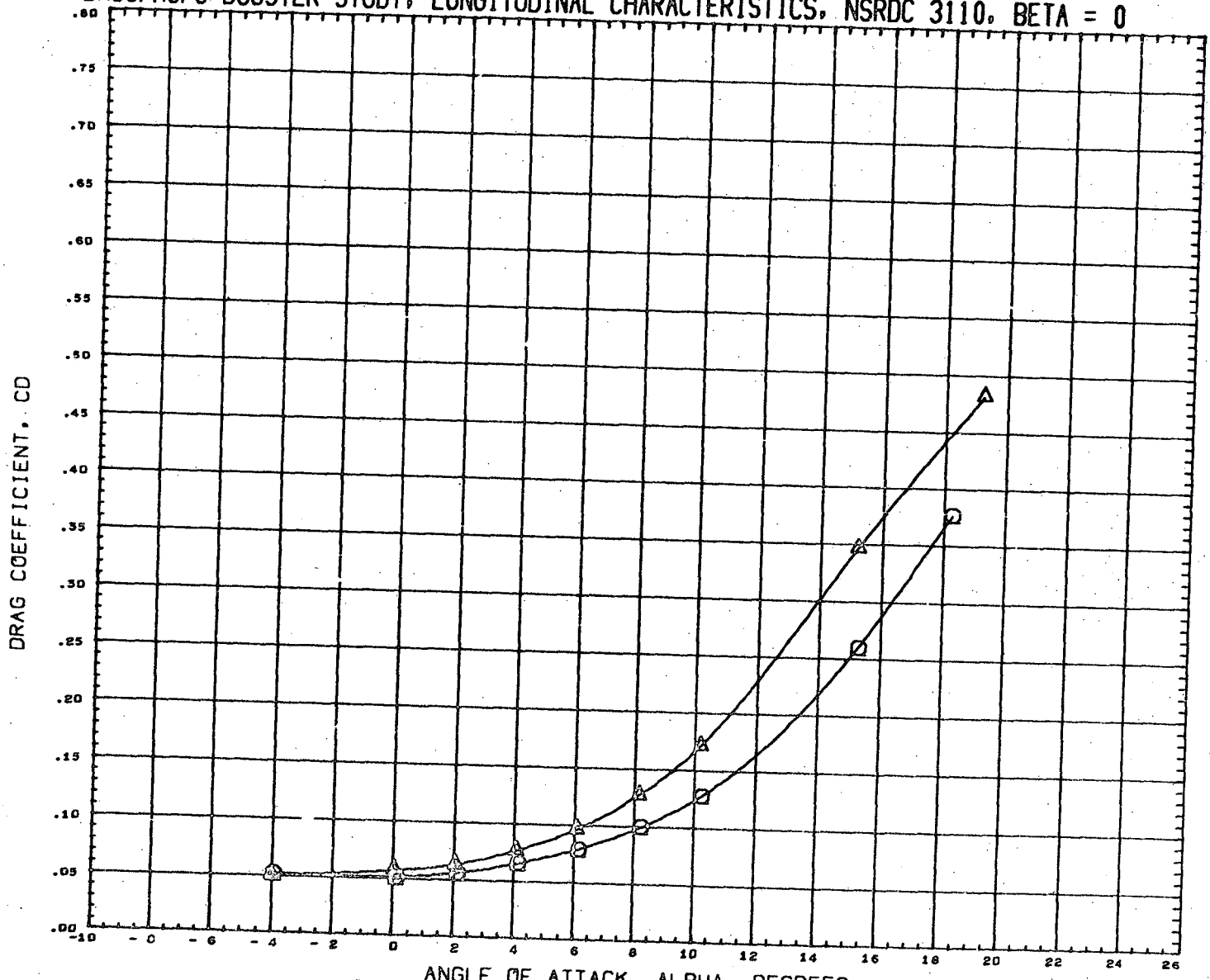



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2025) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 2.000 | 0.000 | 2.000 |
| (RN2057) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 2.000 | 3.000 | 2.000 |

MACH 0.382

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

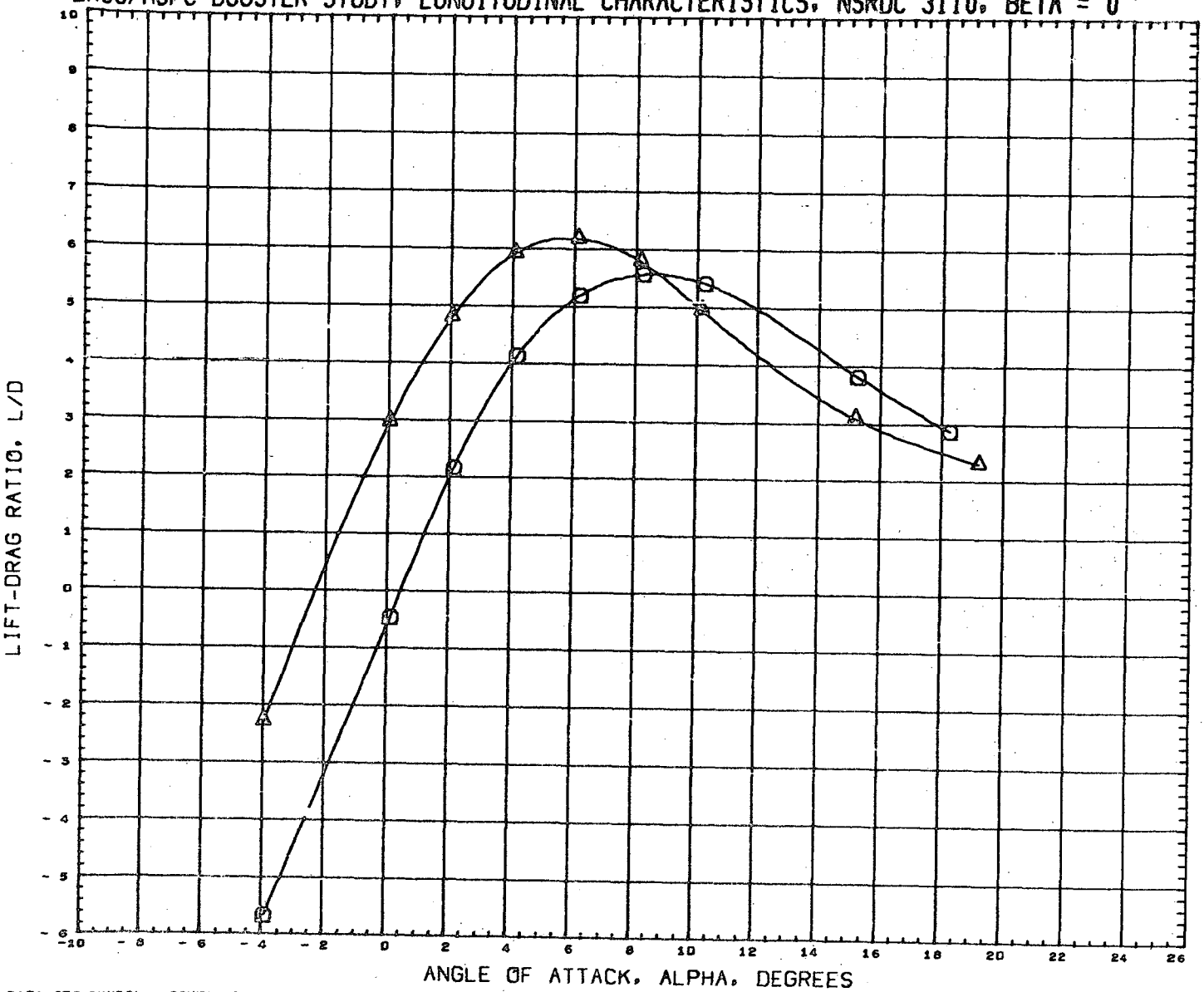



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2025) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 2.000 | 0.000 | 2.000 |
| (RN2057) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 2.000 | 3.000 | 2.000 |

MACH 0.362

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

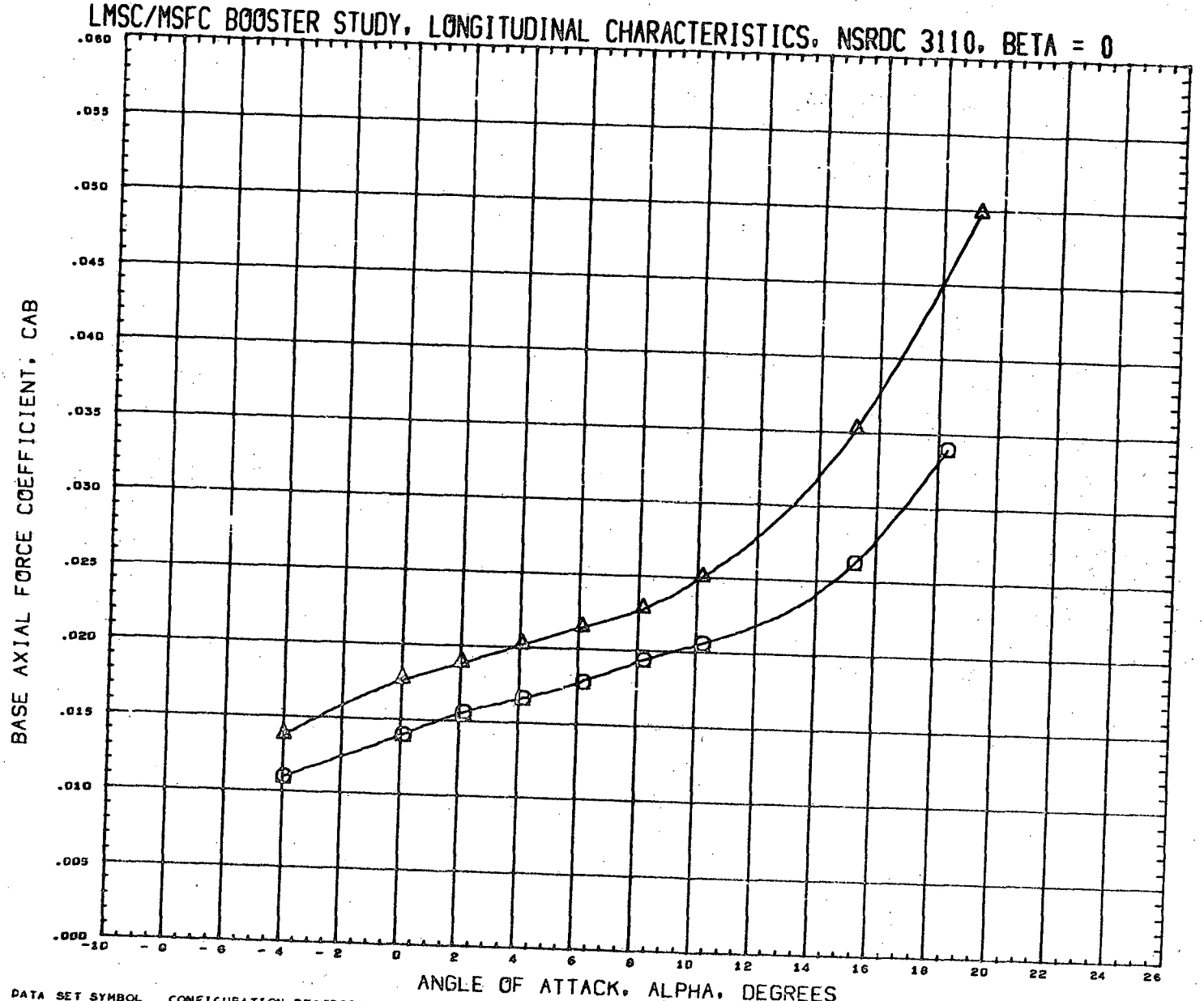
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2025) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 2.000 | 0.000 | 2.000 |
| (RN2057) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 2.000 | 3.000 | 2.000 |

MACH 0.382

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |



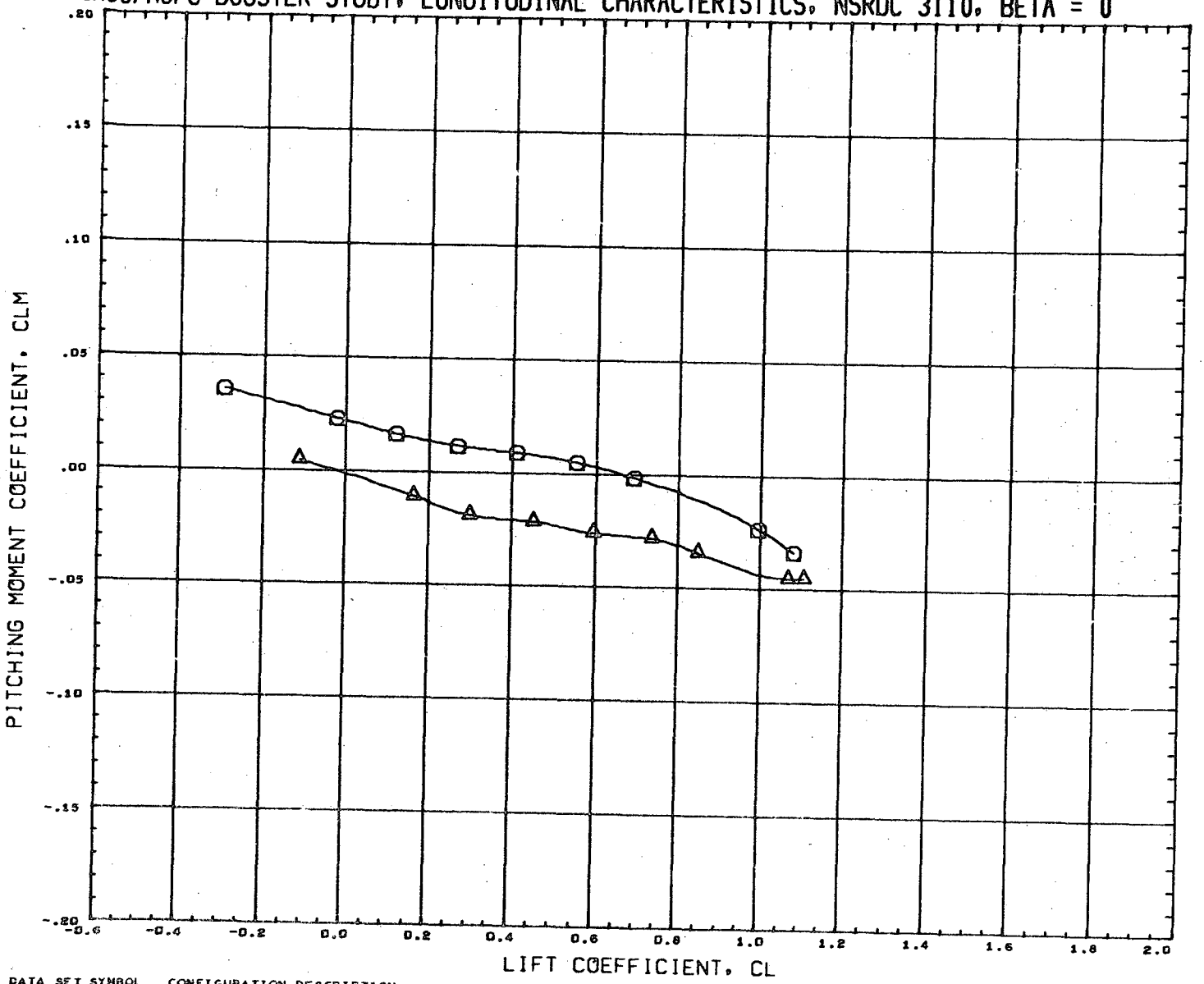

| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2025) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 2.000 | 0.000 | 2.000 |
| (RN2057) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 2.000 | 3.000 | 2.000 |

MACH 0.382

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

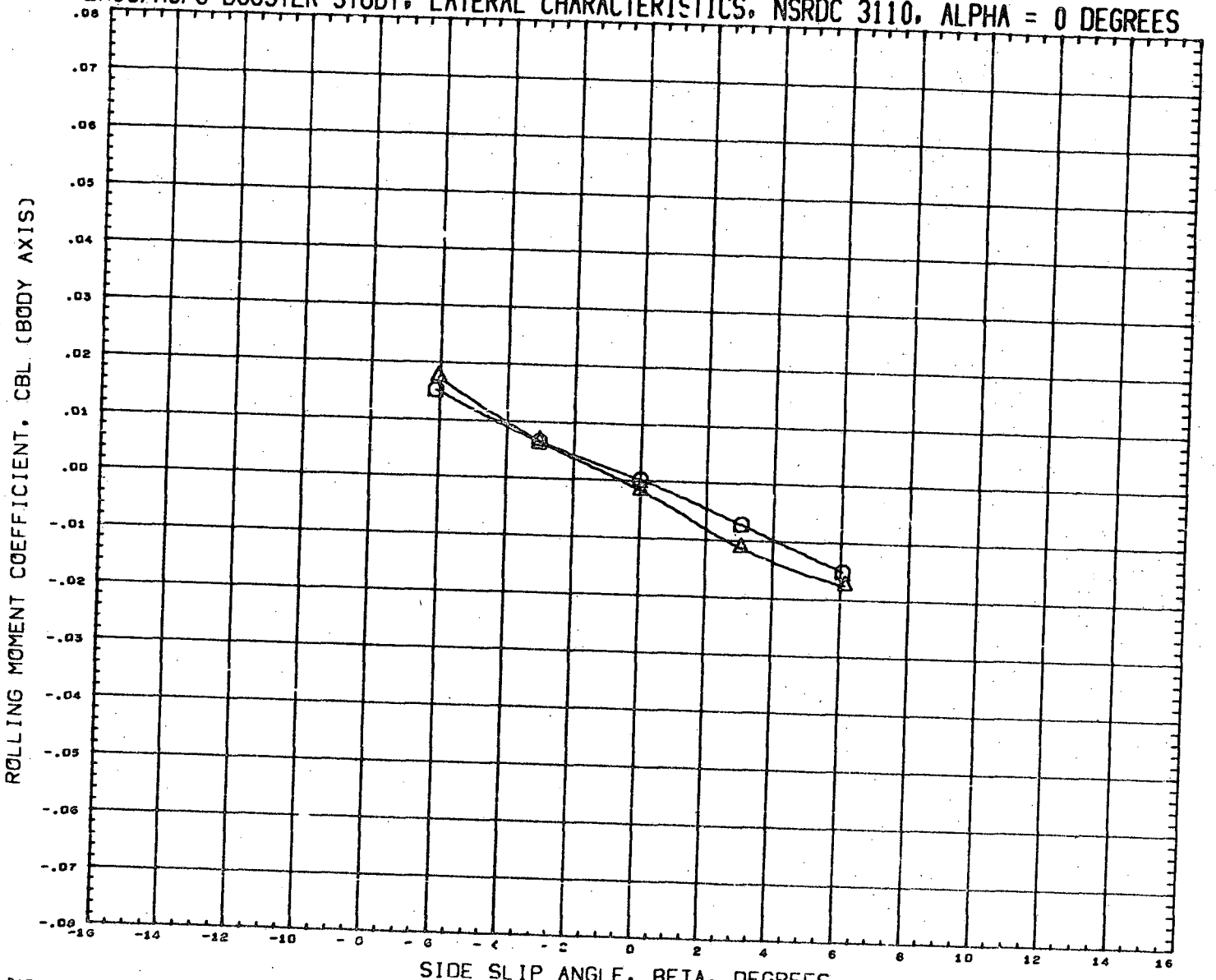



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDFOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2025) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 2.000 | 0.000 | 2.000 |
| (RN2057) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 2.000 | 3.000 | 2.000 |

MACH 0.362

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES




| DATA SET SYMBOL | CONFIGURATION DESCRIPTION |
|---|---|
| (RN2026) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 |
| (RN2058) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 |

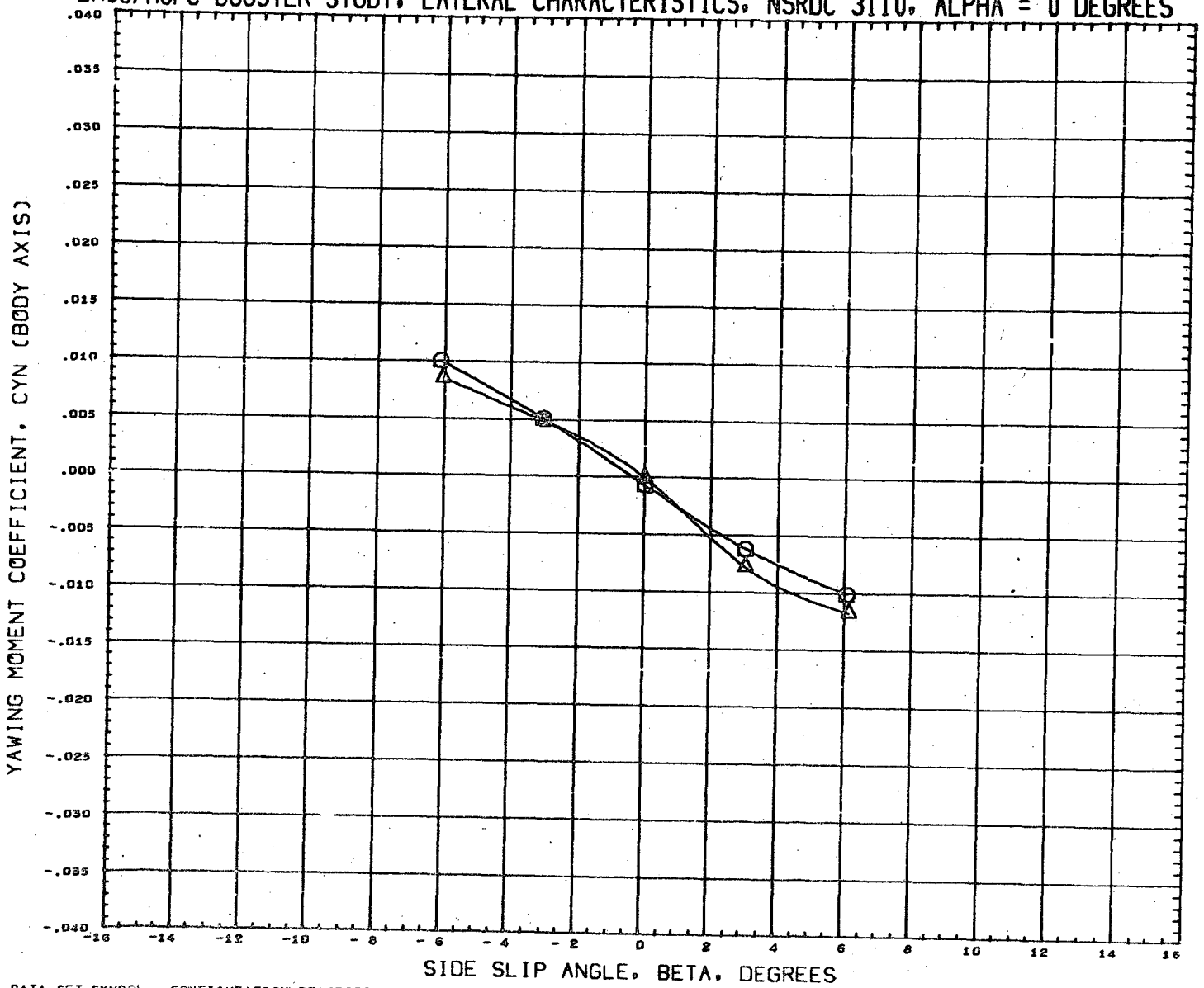
| INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|
| 3.000 | 2.000 | 0.000 | 2.000 |
| 3.000 | 2.000 | 3.000 | 2.000 |

MACH 0.381

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

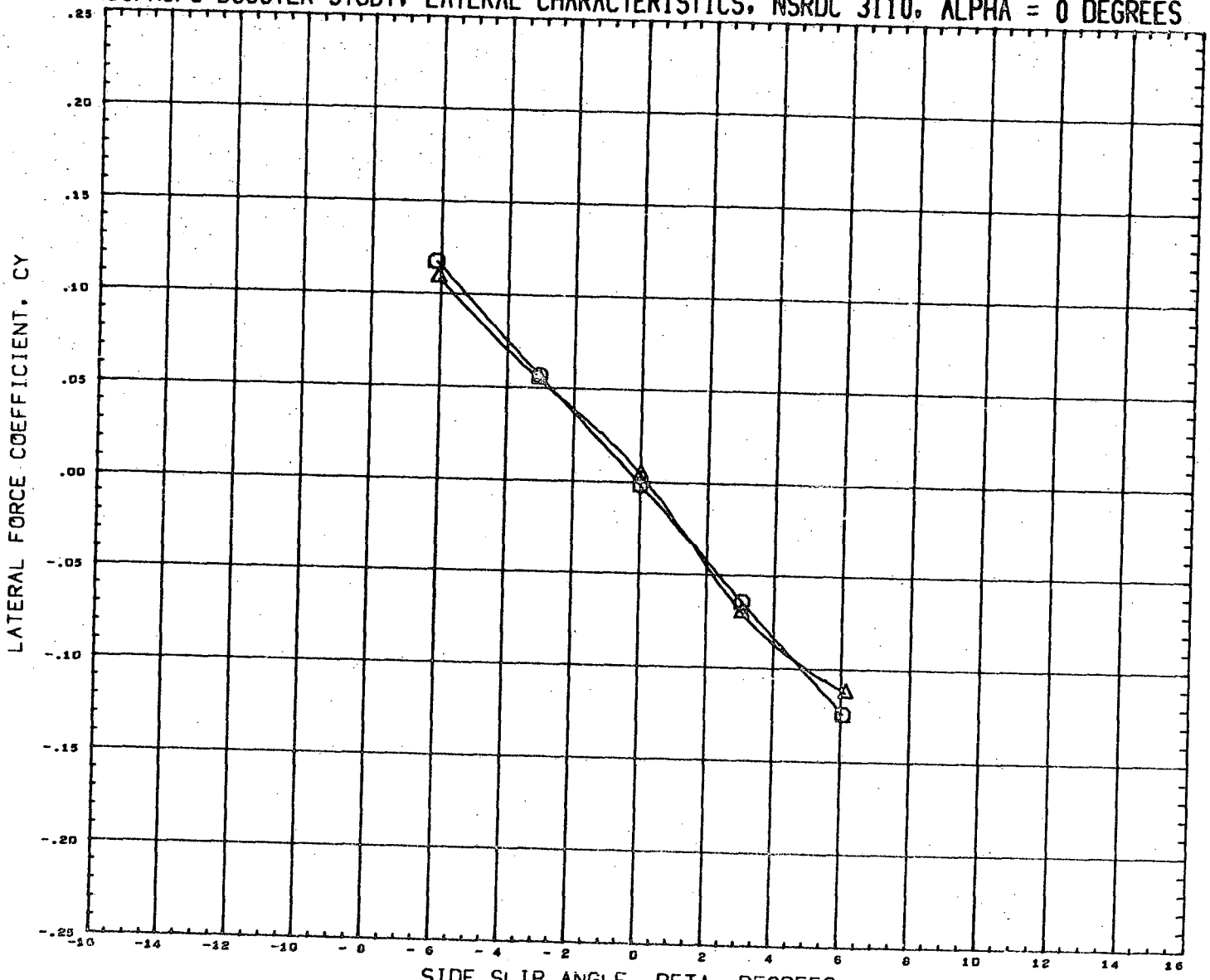



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2026) | | NSRDC-3110,NSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 2.000 | 0.000 | 2.000 |
| (RN2038) | | NSRDC-3110,NSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 2.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

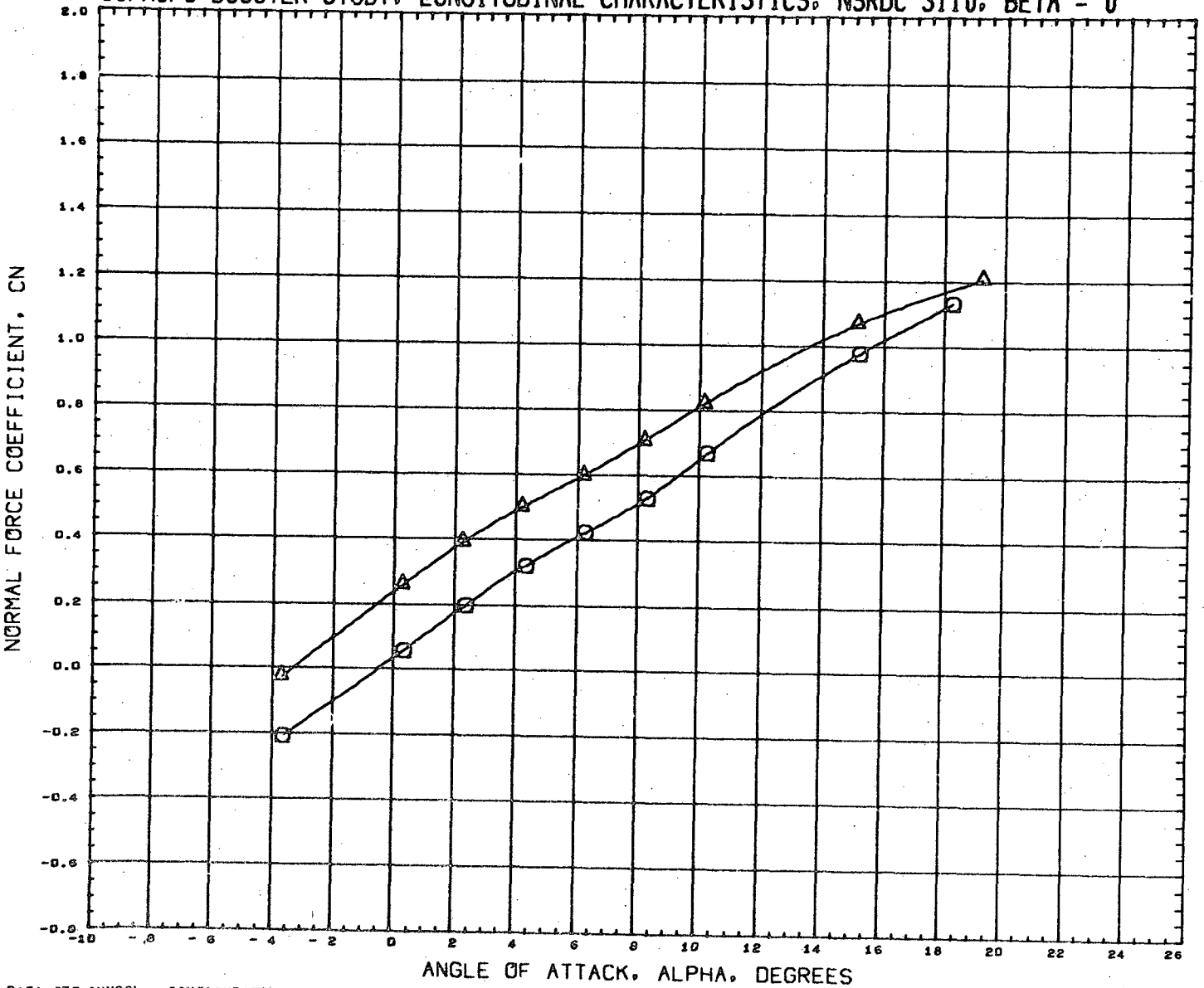
LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2026) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 2.000 | 0.000 | 2.000 |
| (RN2058) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 3.000 | 2.000 | 3.000 | 2.000 |

MACH 0.381

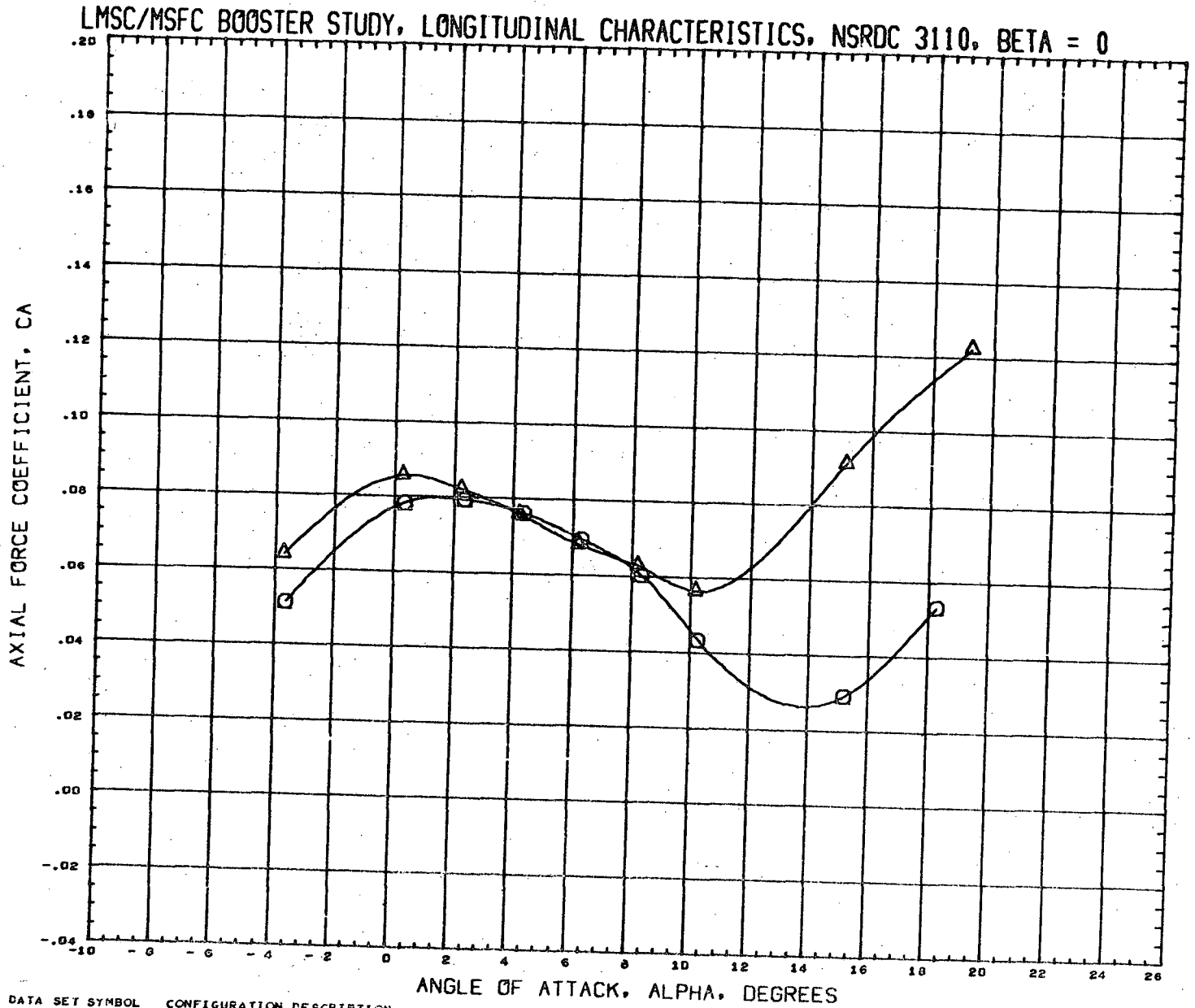
| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |




| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2029) ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 2.000 | 0.000 | 2.000 |
| (RN2051) △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 2.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

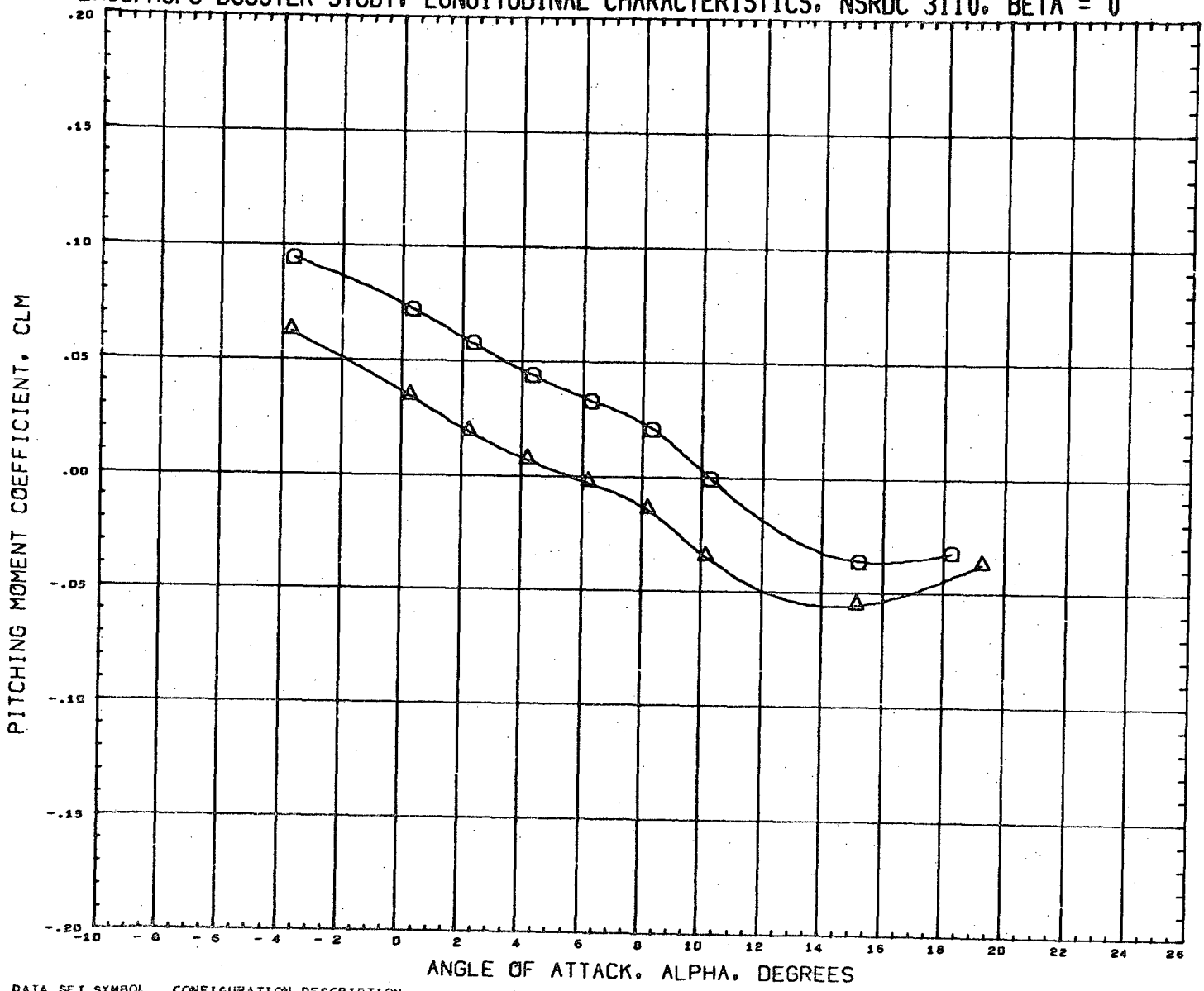



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2029) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 2.000 | 0.000 | 2.000 |
| (RN2061) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 2.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

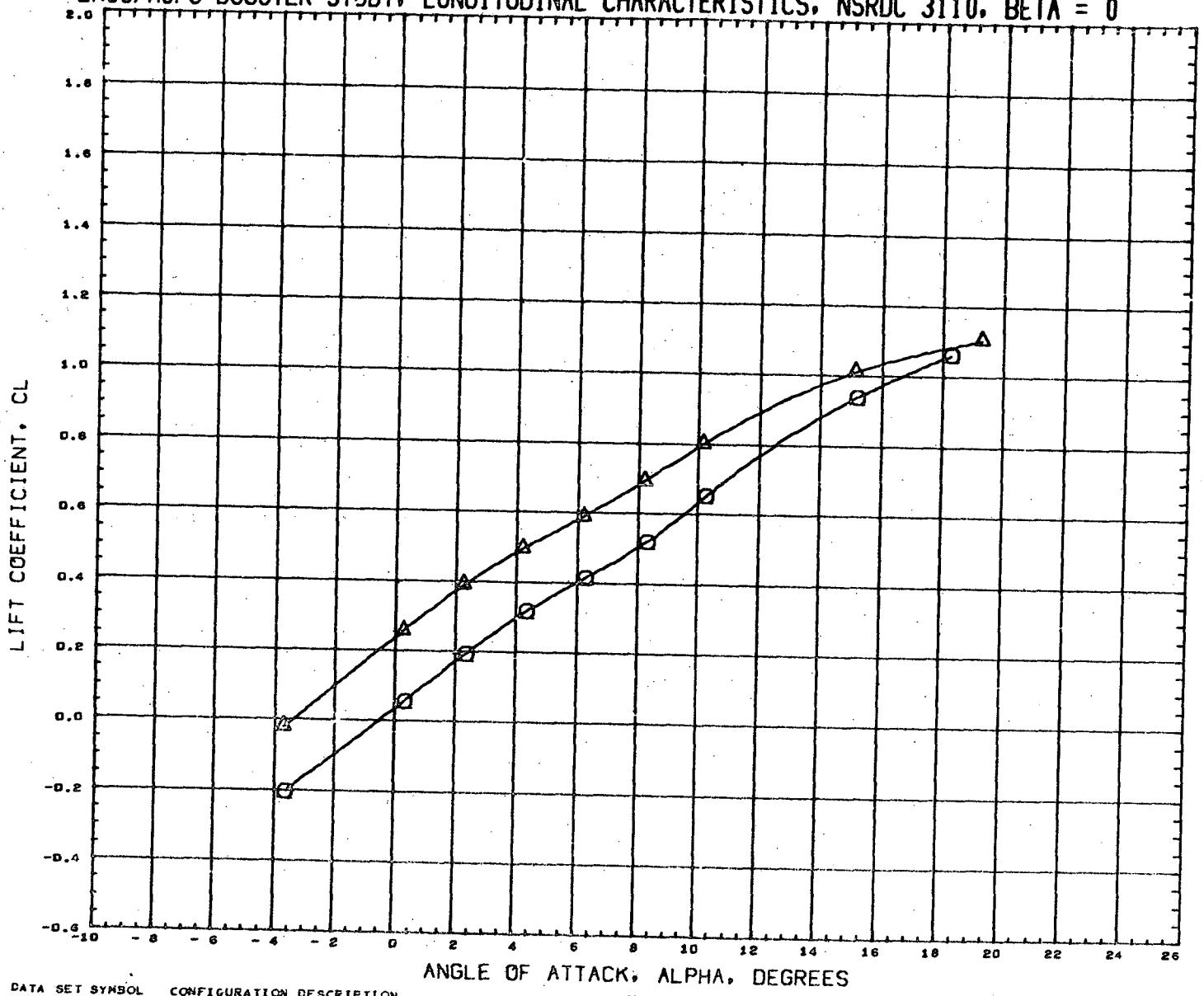



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2029) | O | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 2.000 | 0.000 | 2.000 |
| (RN2061) | Δ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 2.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

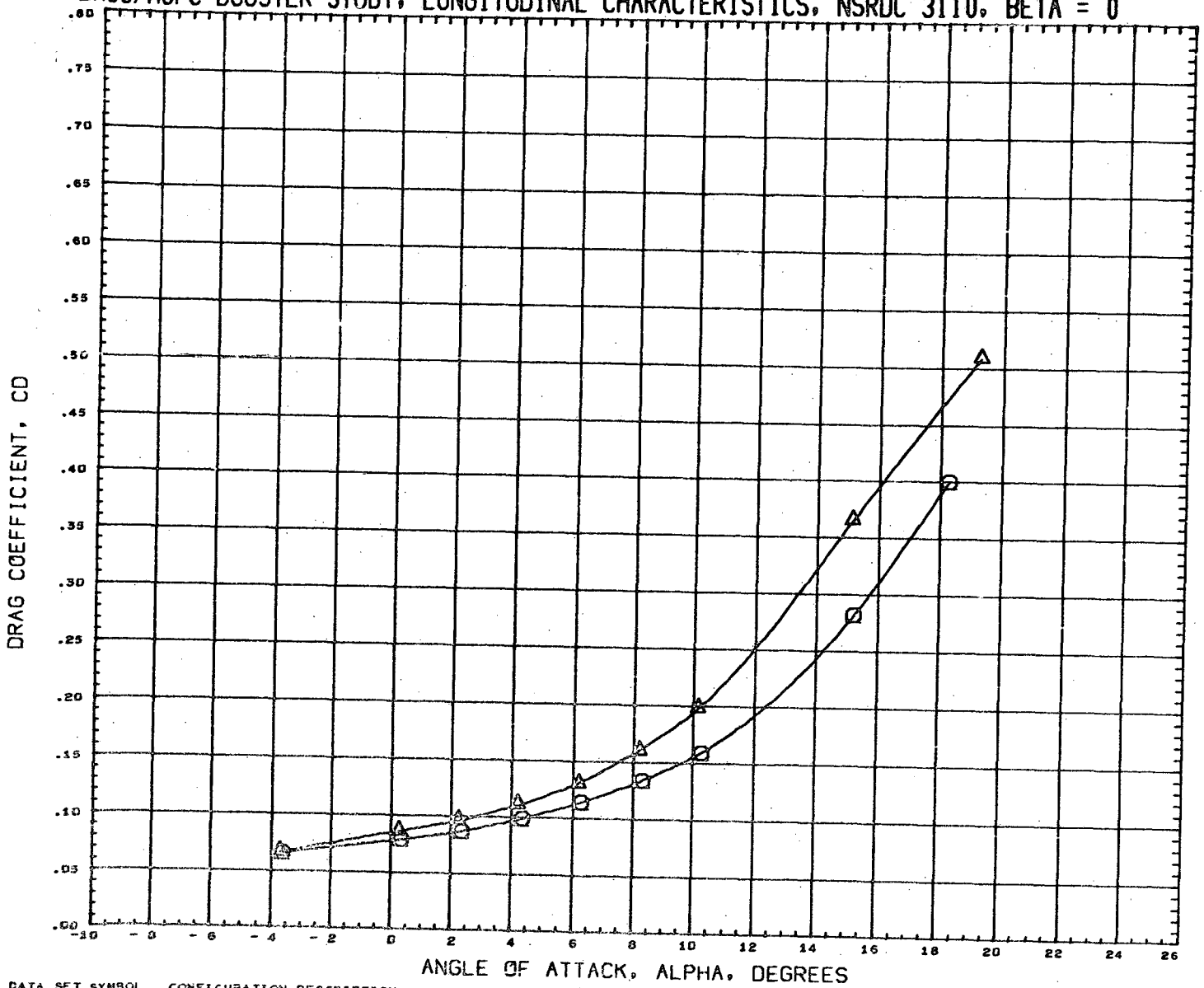



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2029) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 2.000 | 0.000 | 2.000 |
| (RN2061) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 2.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2029) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 2.000 | 0.000 | 2.000 |
| (RN2061) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 2.000 | 3.000 | 2.000 |

MACH 0.381

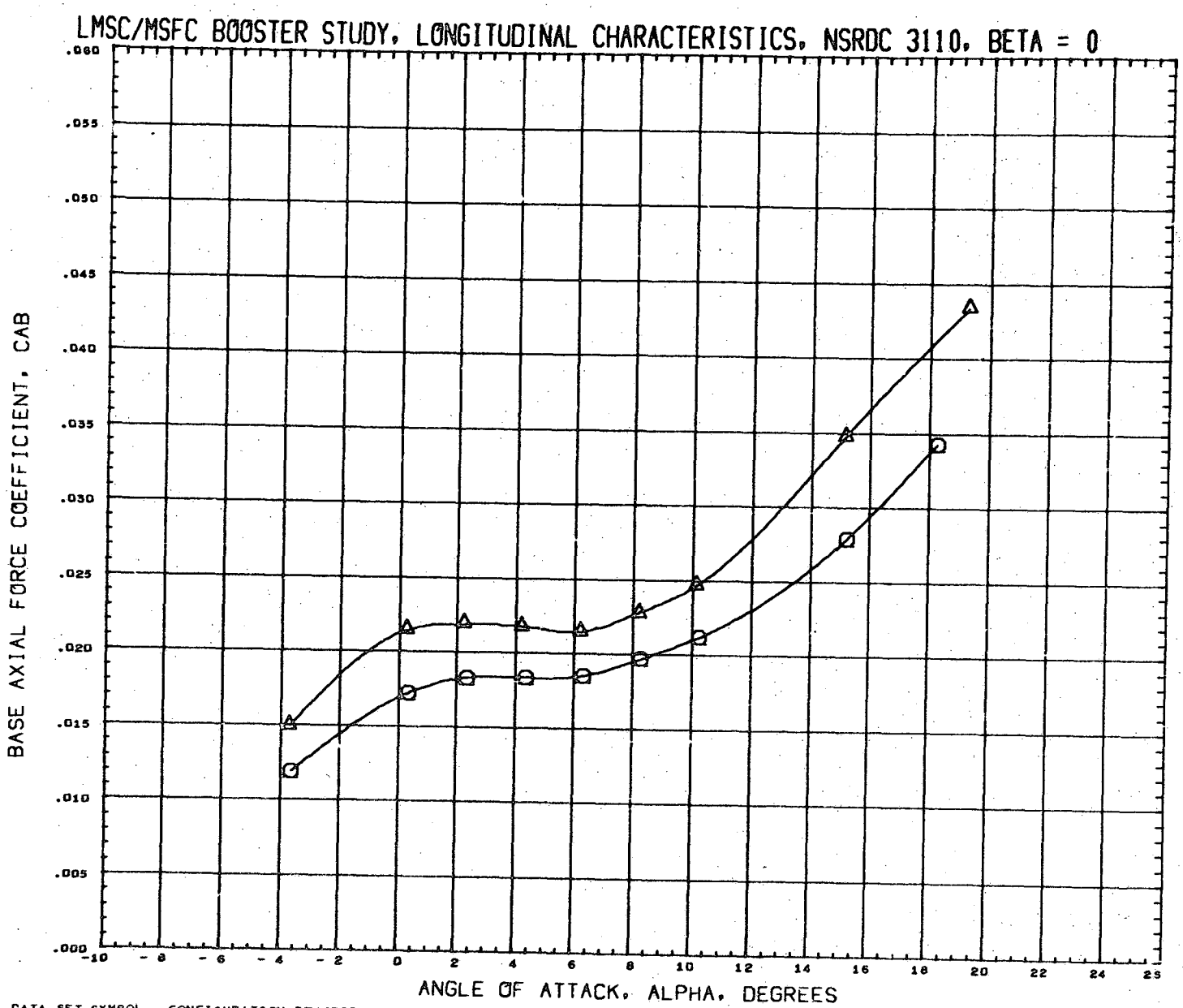
| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2029) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 2.000 | 0.000 | 2.000 |
| (RN2061) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 2.000 | 3.000 | 2.000 |

MACH 0.361

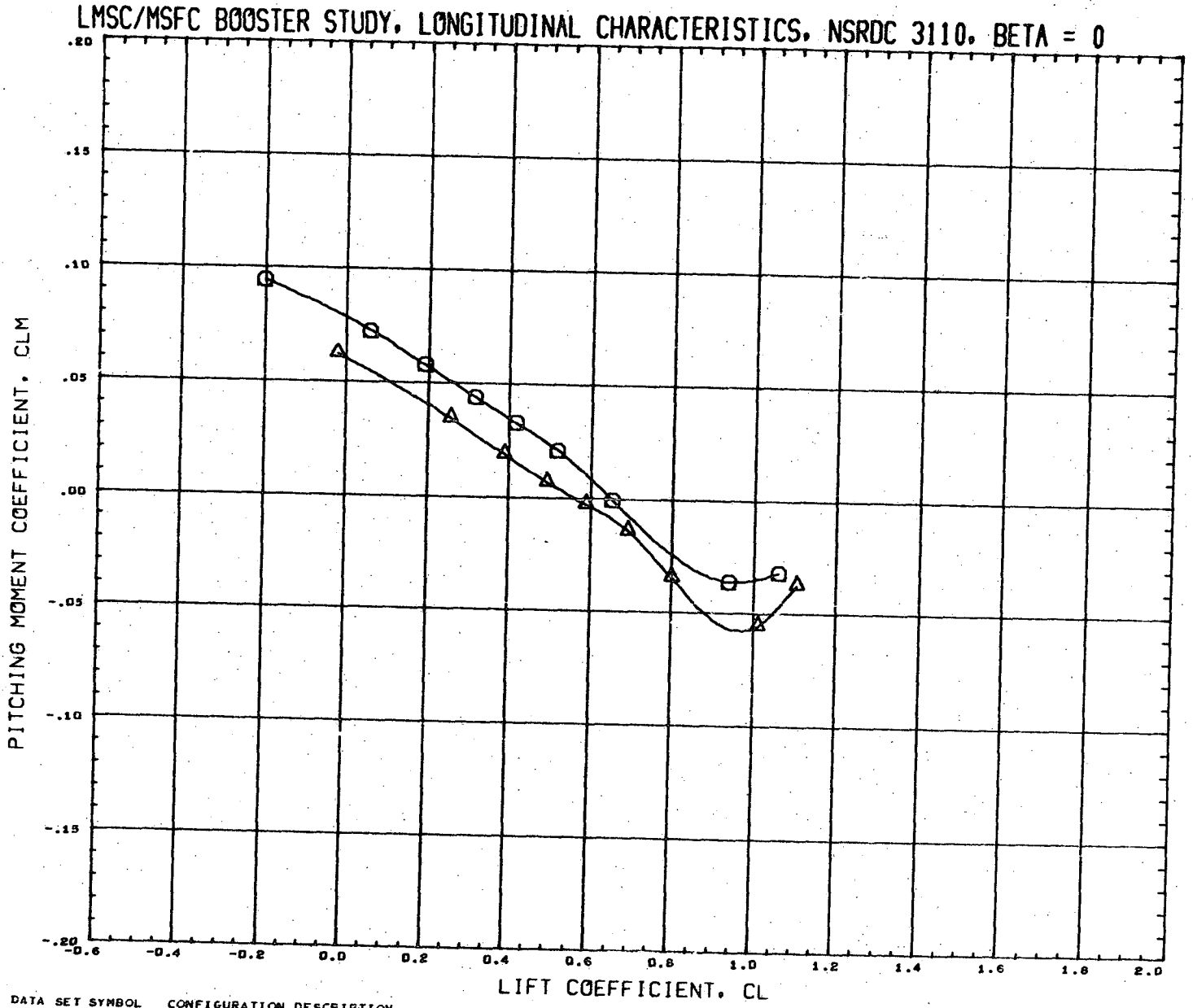
| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2029) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 2.000 | 0.000 | 2.000 |
| (RN2061) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 2.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

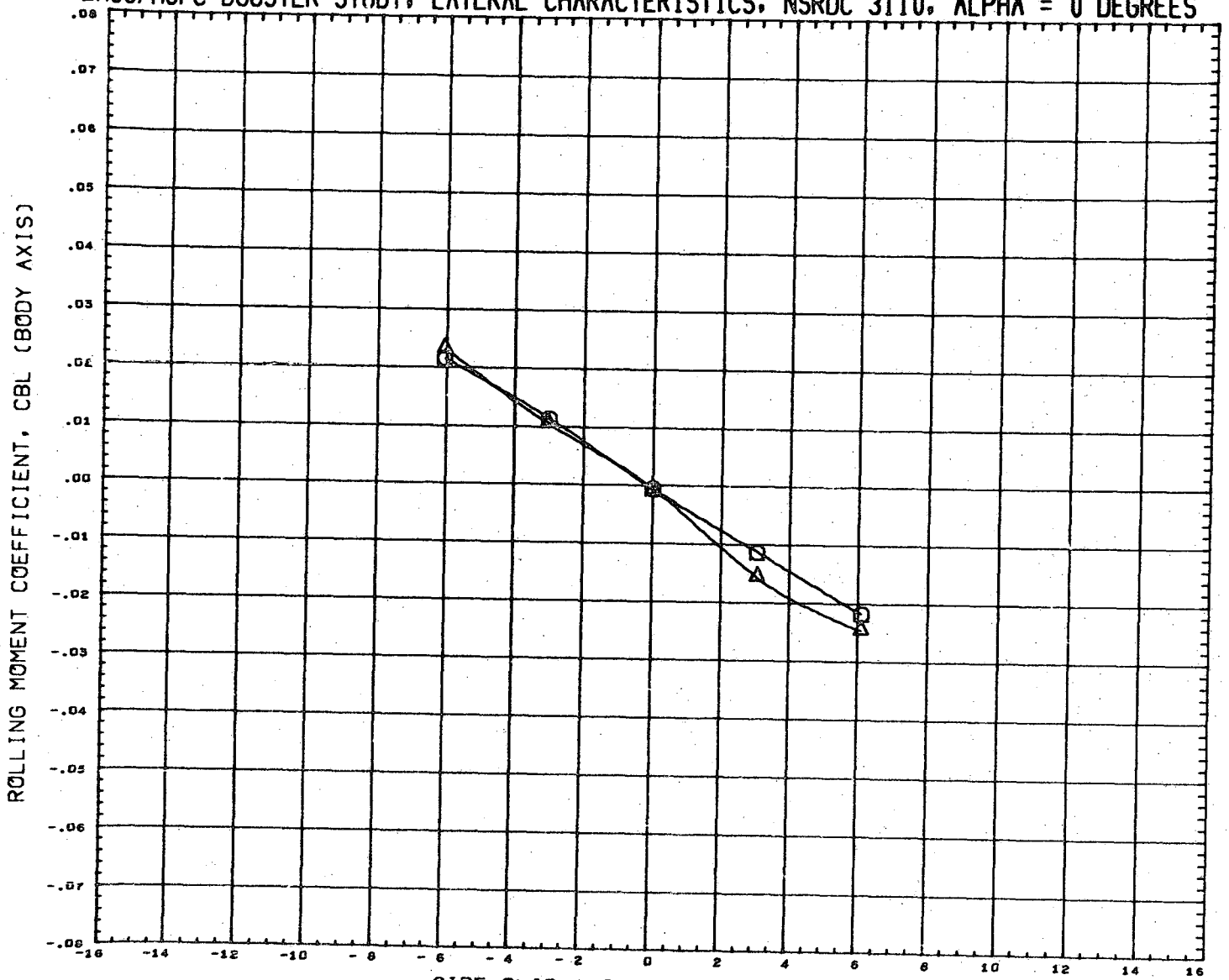



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2029) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 2.000 | 0.000 | 2.000 |
| (RN2061) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 2.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

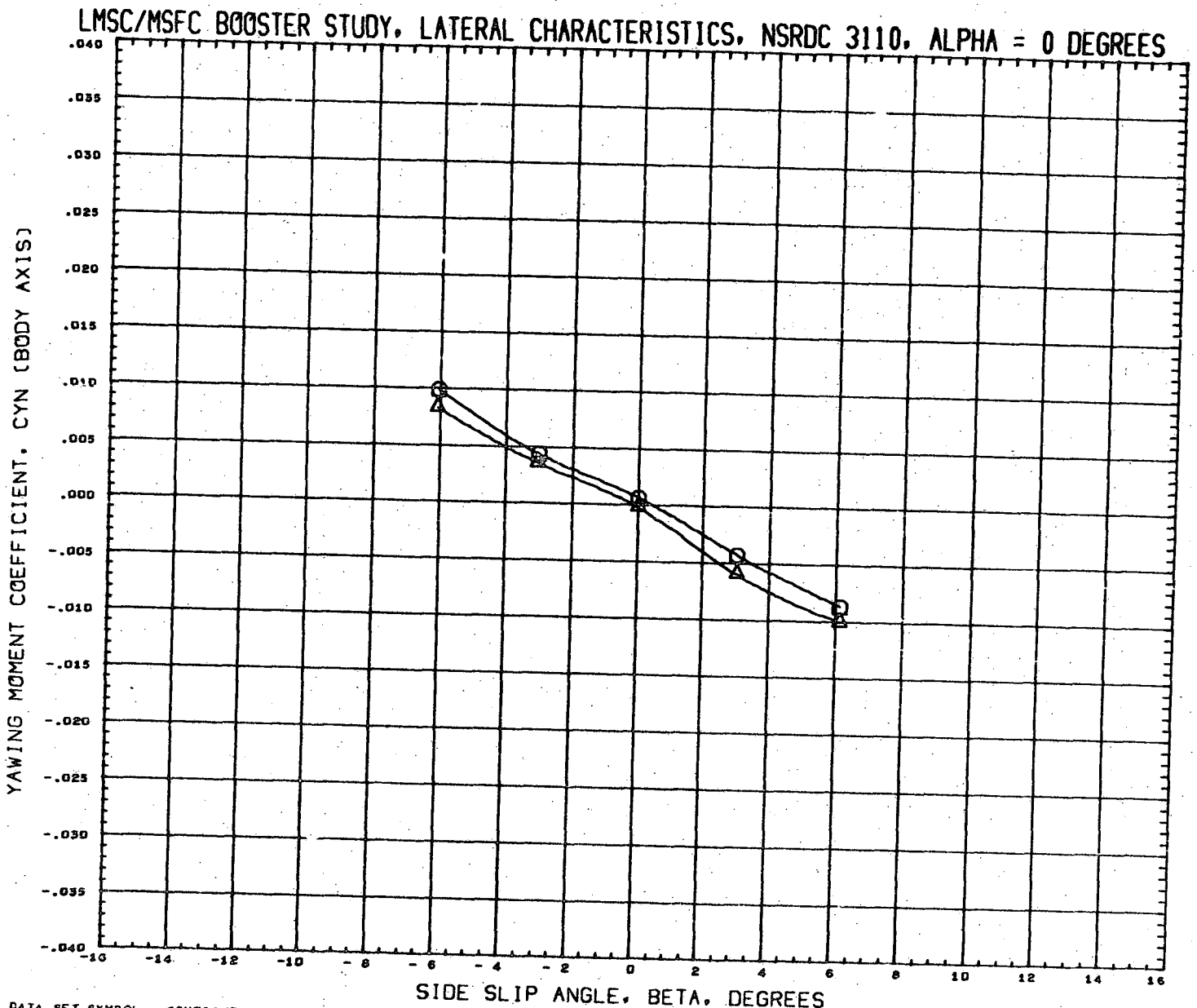
# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2030) | Q | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 2.000 | 0.000 | 2.000 |
| (RN2062) | Δ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 2.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |




| DATA SET SYMBOL | CONFIGURATION DESCRIPTION |
|---|---|
| (RN2030) ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 |
| (RN2062) △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 |

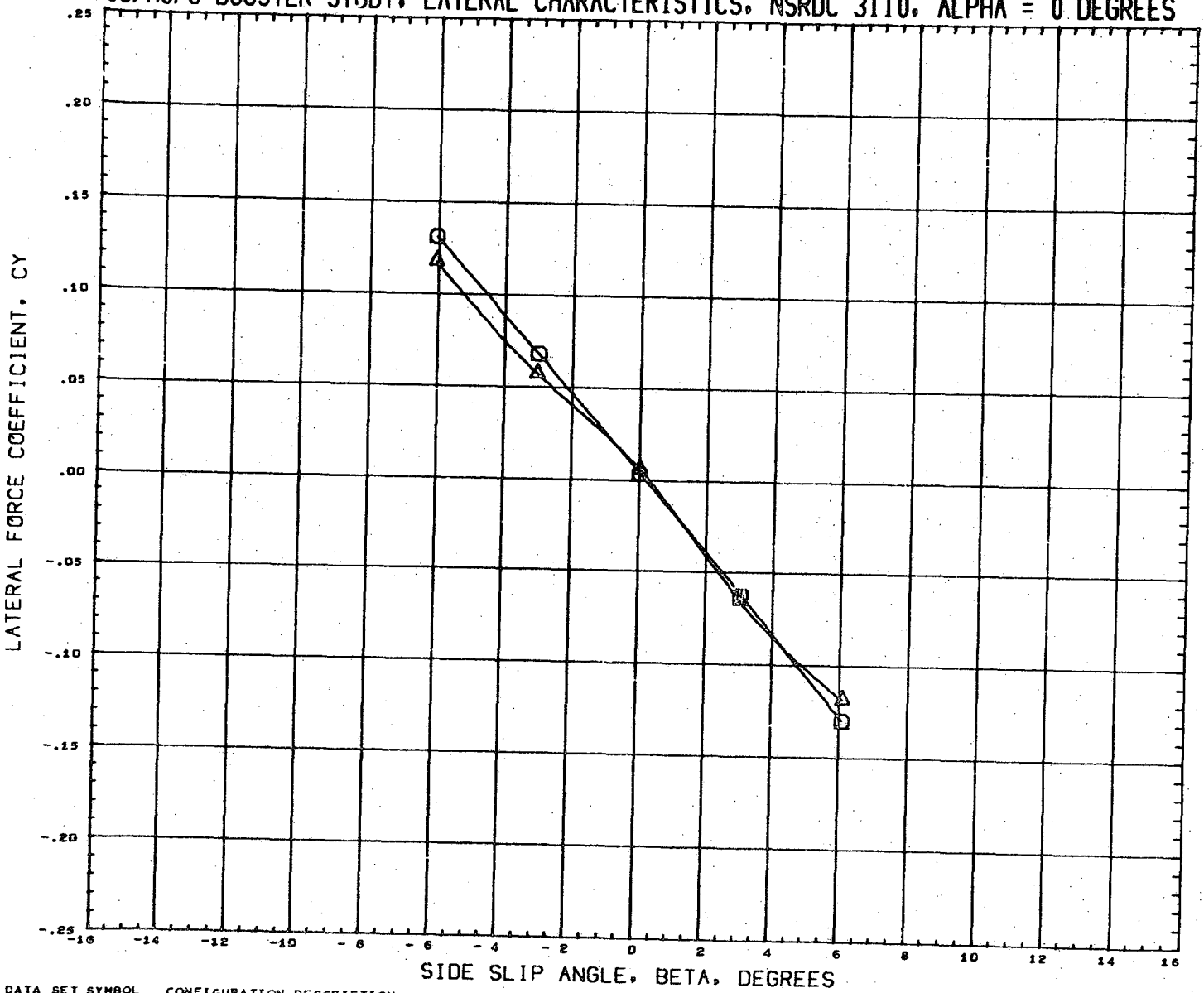
| INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|
| 15.000 | 2.000 | 0.000 | 2.000 |
| 15.000 | 2.000 | 3.000 | 2.000 |

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

MACH 0.381

LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES



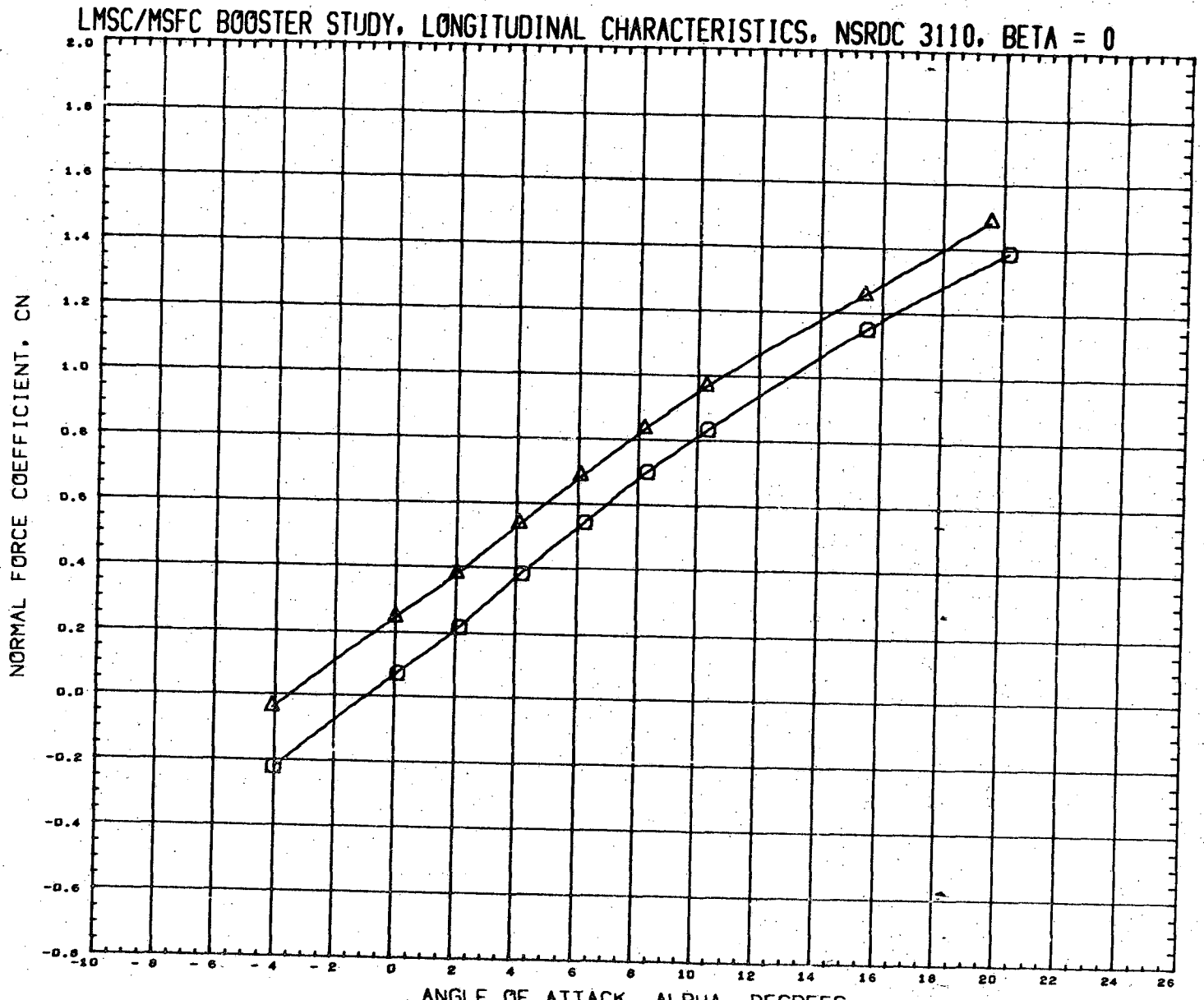

| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION |
|---|---|---|
| (RN2030) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 |
| (RN2062) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 |

| INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|
| 15.000 | 2.000 | 0.000 | 2.000 |
| 15.000 | 2.000 | 3.000 | 2.000 |

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

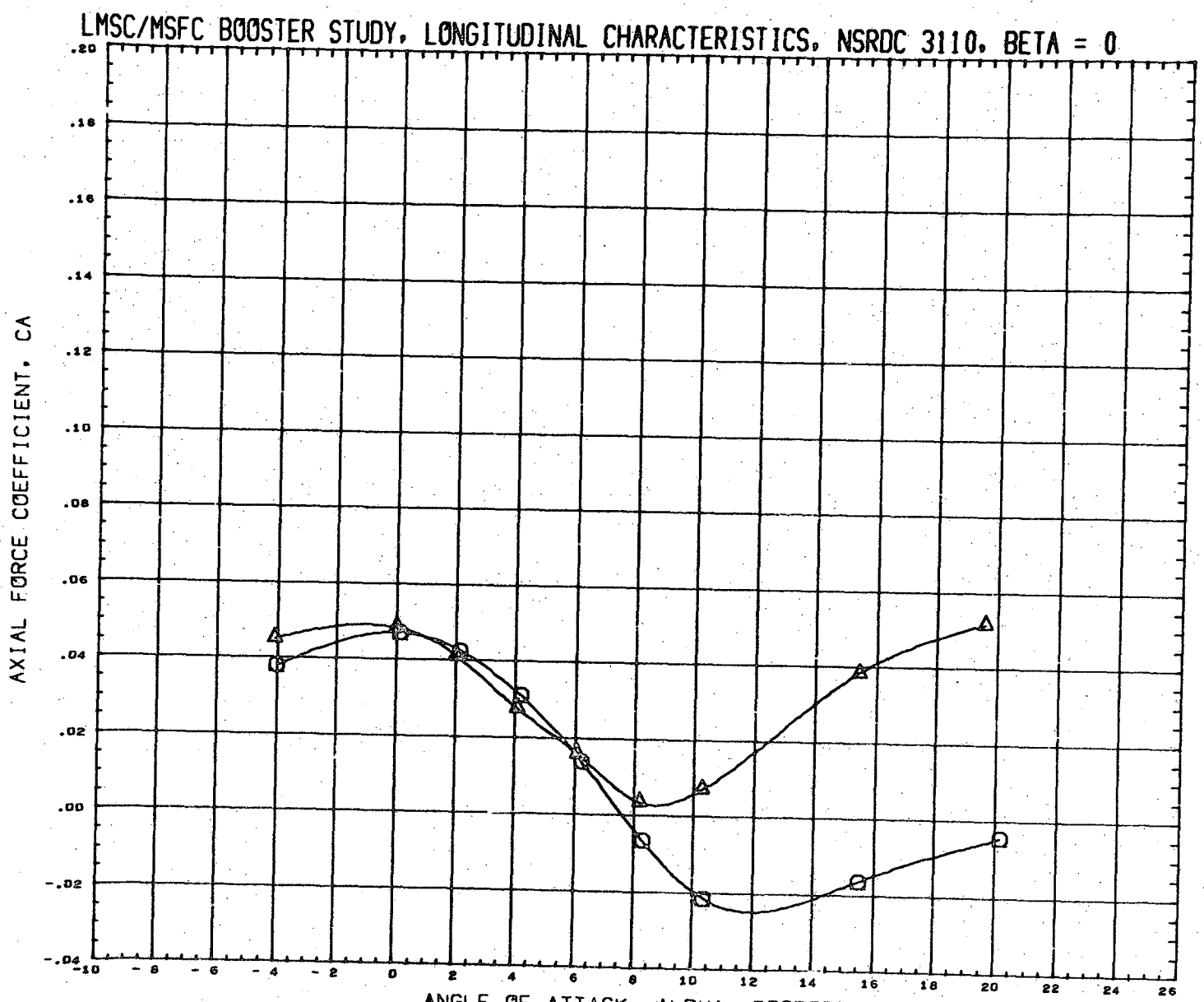
MACH 0.381




| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2065) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 1.000 | 0.000 | 1.000 |
| (RN2097) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 1.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

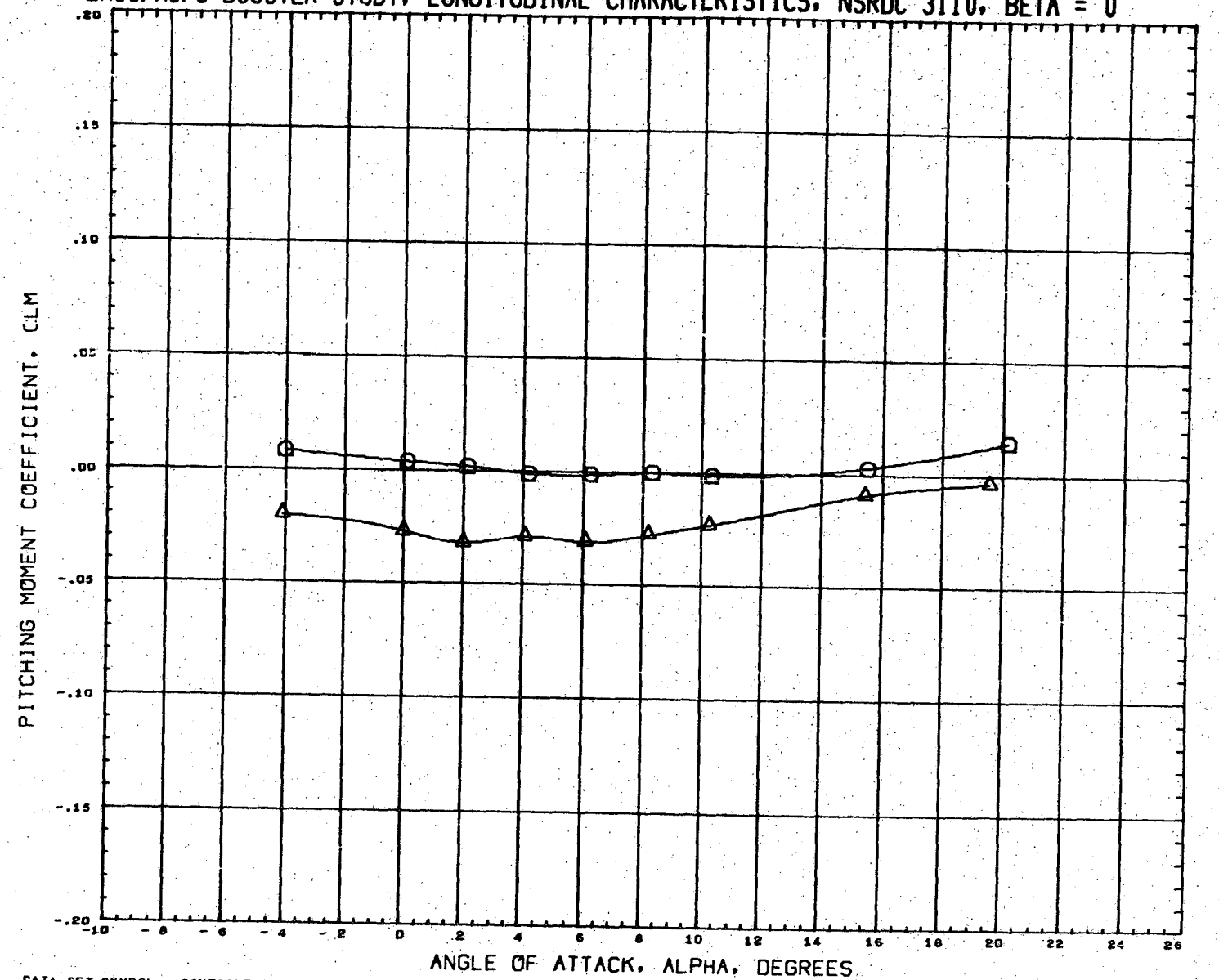



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2065) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 1.000 | 0.000 | 1.000 |
| (RN2097) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 1.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION |
|---|---|---|
| (RN2065) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 |
| (RN2097) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 |

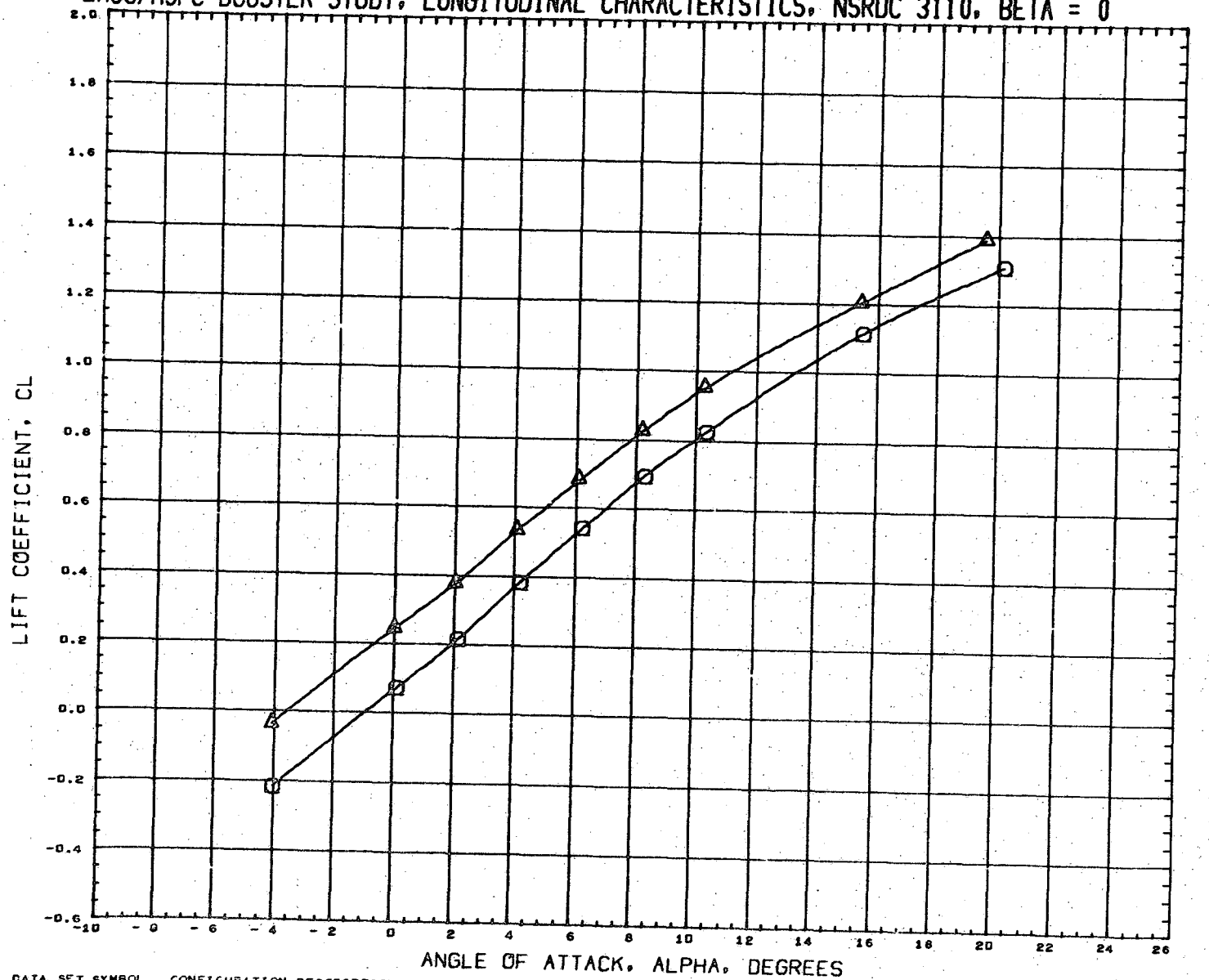
| INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|
| 3.000 | 1.000 | 0.000 | 1.000 |
| 3.000 | 1.000 | 3.000 | 1.000 |

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

MACH 0.381

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0



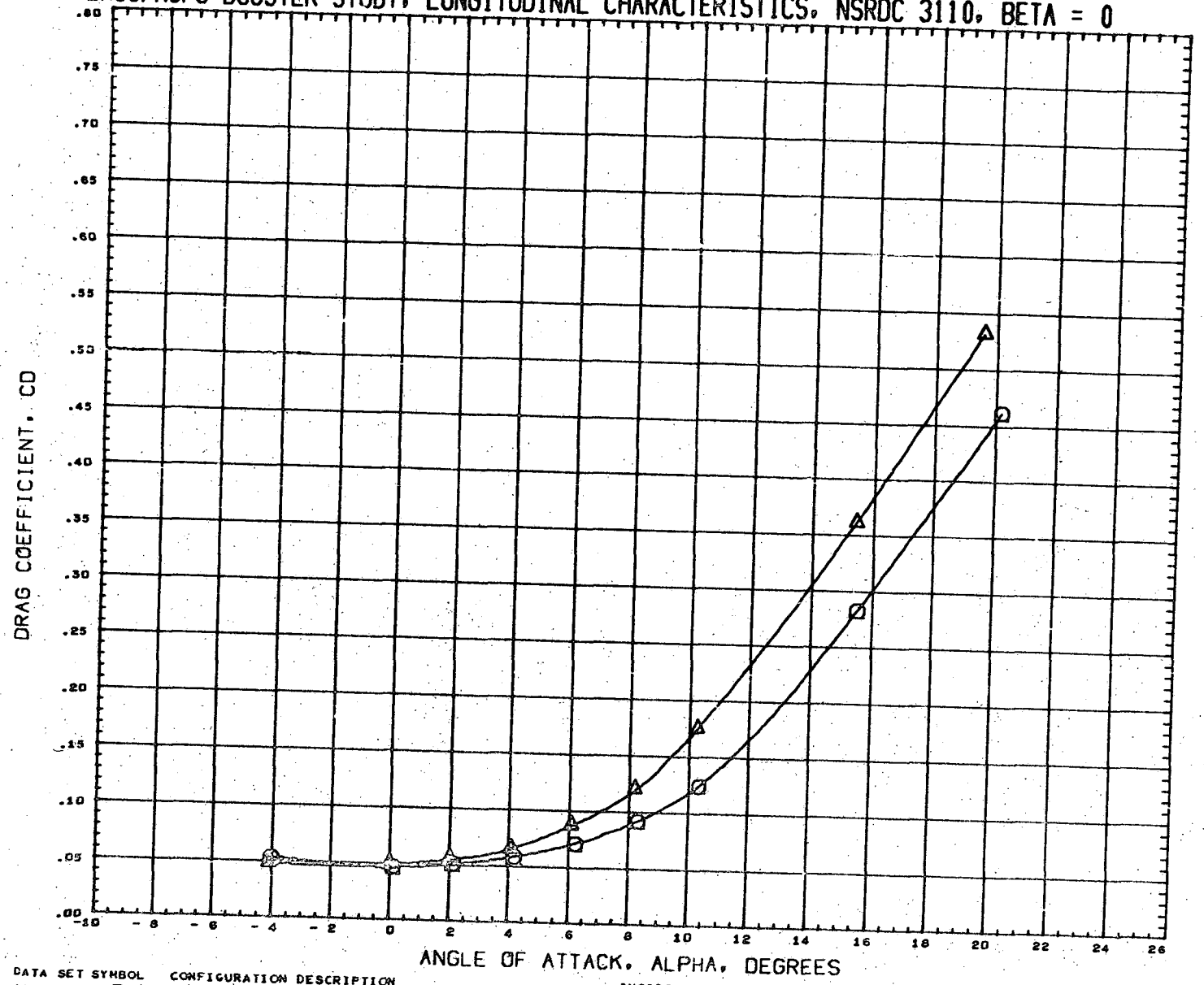

| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDFOS | INCIDW | WNGFOS |
|---|---|---|---|---|---|---|
| (RN2065) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 1.000 | 0.000 | 1.000 |
| (RN2097) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 1.000 | 3.000 | 1.000 |

MACH 0.381

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

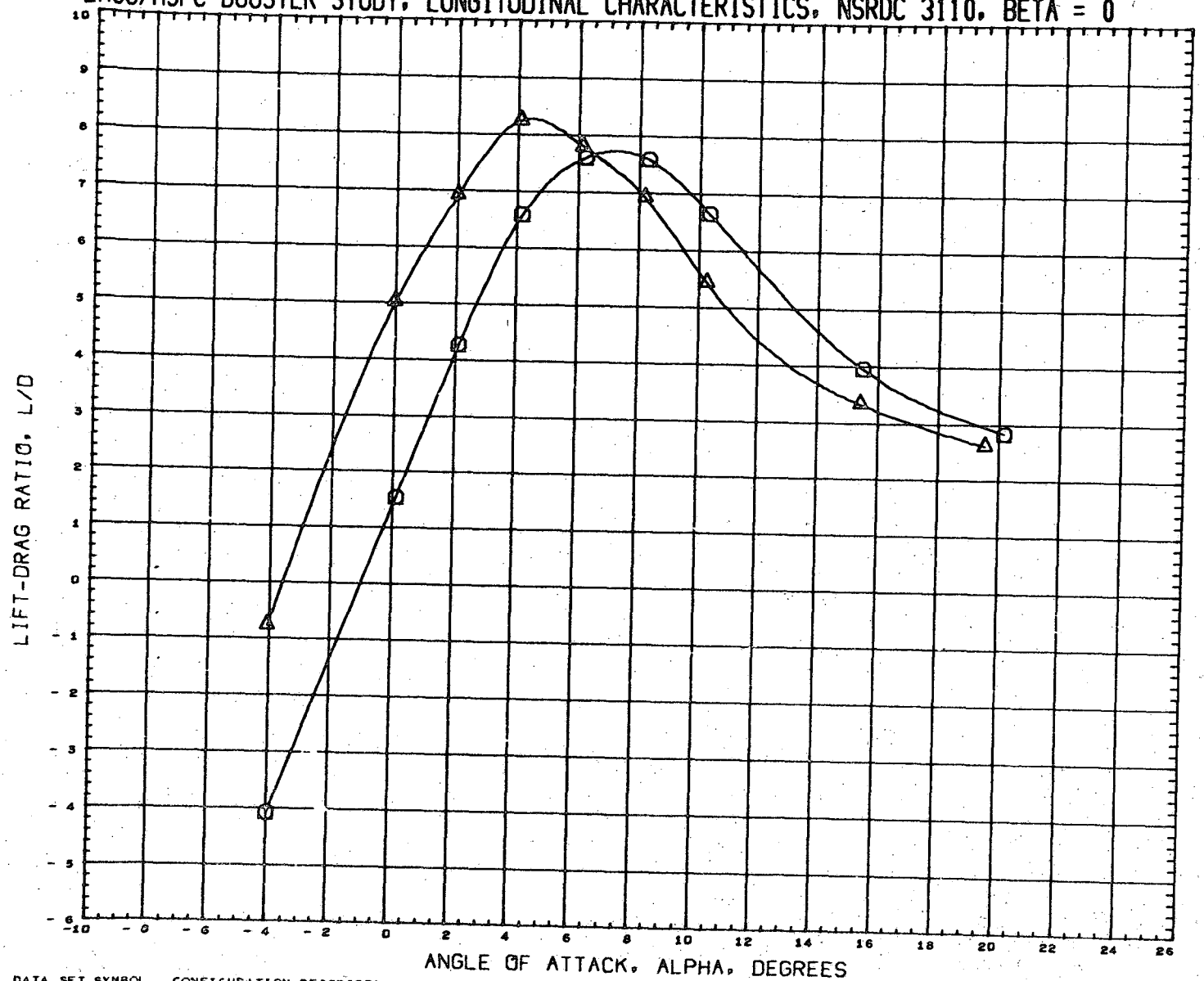



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2065) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 1.000 | 0.000 | 1.000 |
| (RN2097) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 1.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION |
|---|---|---|
| (RN2065) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 |
| (RN2097) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 |

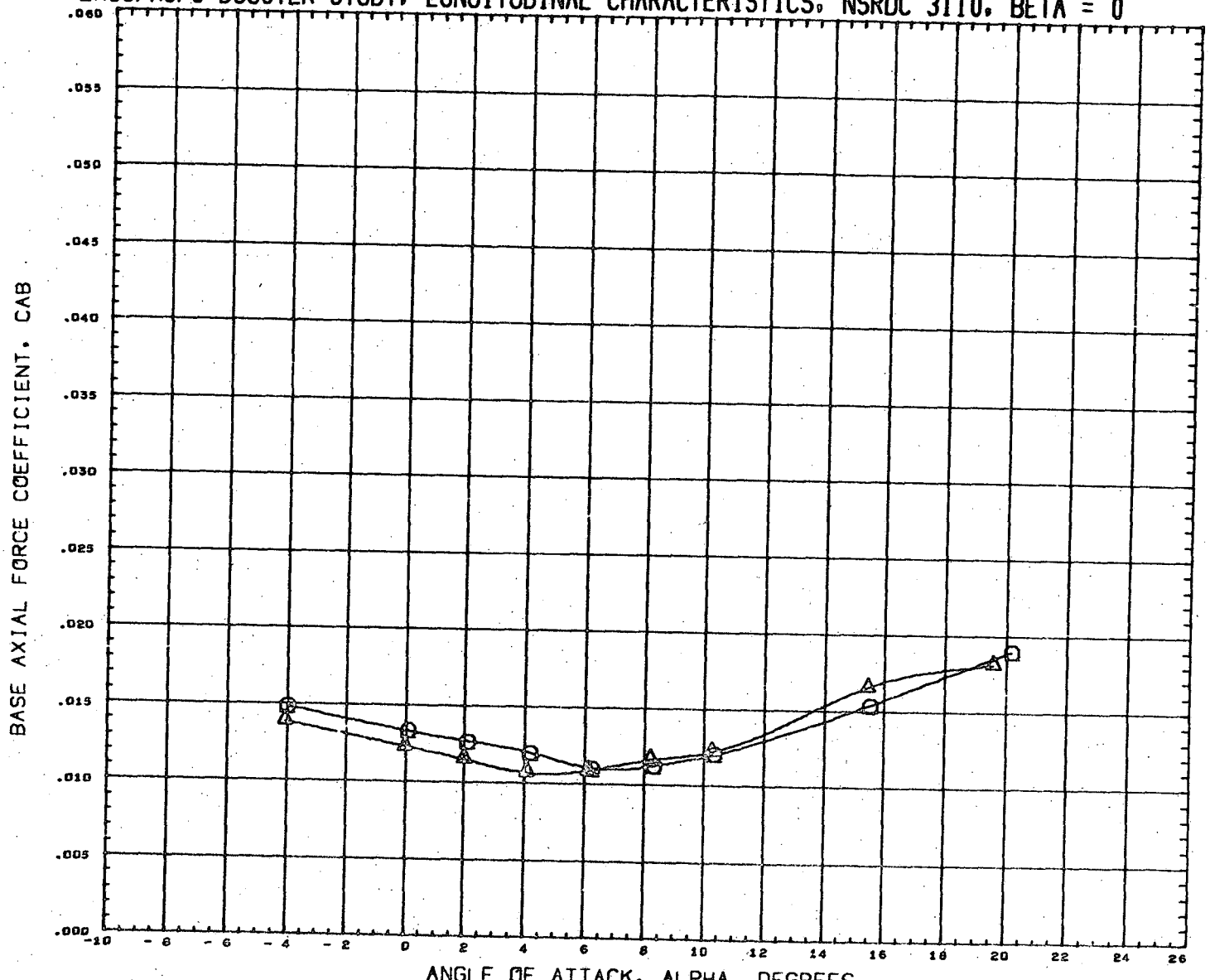
| INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|
| 3.000 | 1.000 | 0.000 | 1.000 |
| 3.000 | 1.000 | 3.000 | 1.000 |

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

MACH 0.381

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

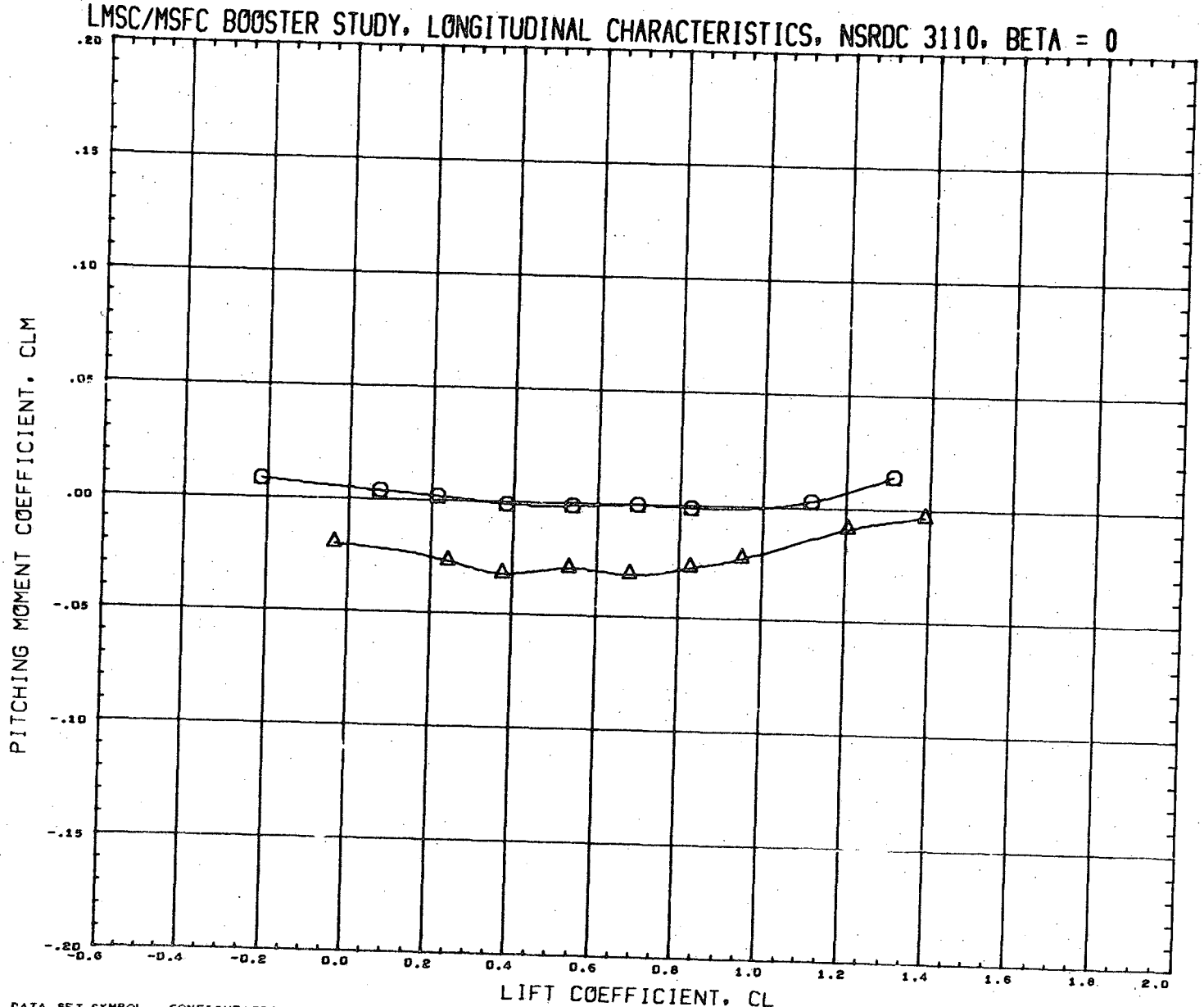



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION |
|---|---|---|
| (RN2065) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 |
| (RN2097) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 |

| INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|
| 3.000 | 1.000 | 0.000 | 1.000 |
| 3.000 | 1.000 | 3.000 | 1.000 |

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

MACH 0.381



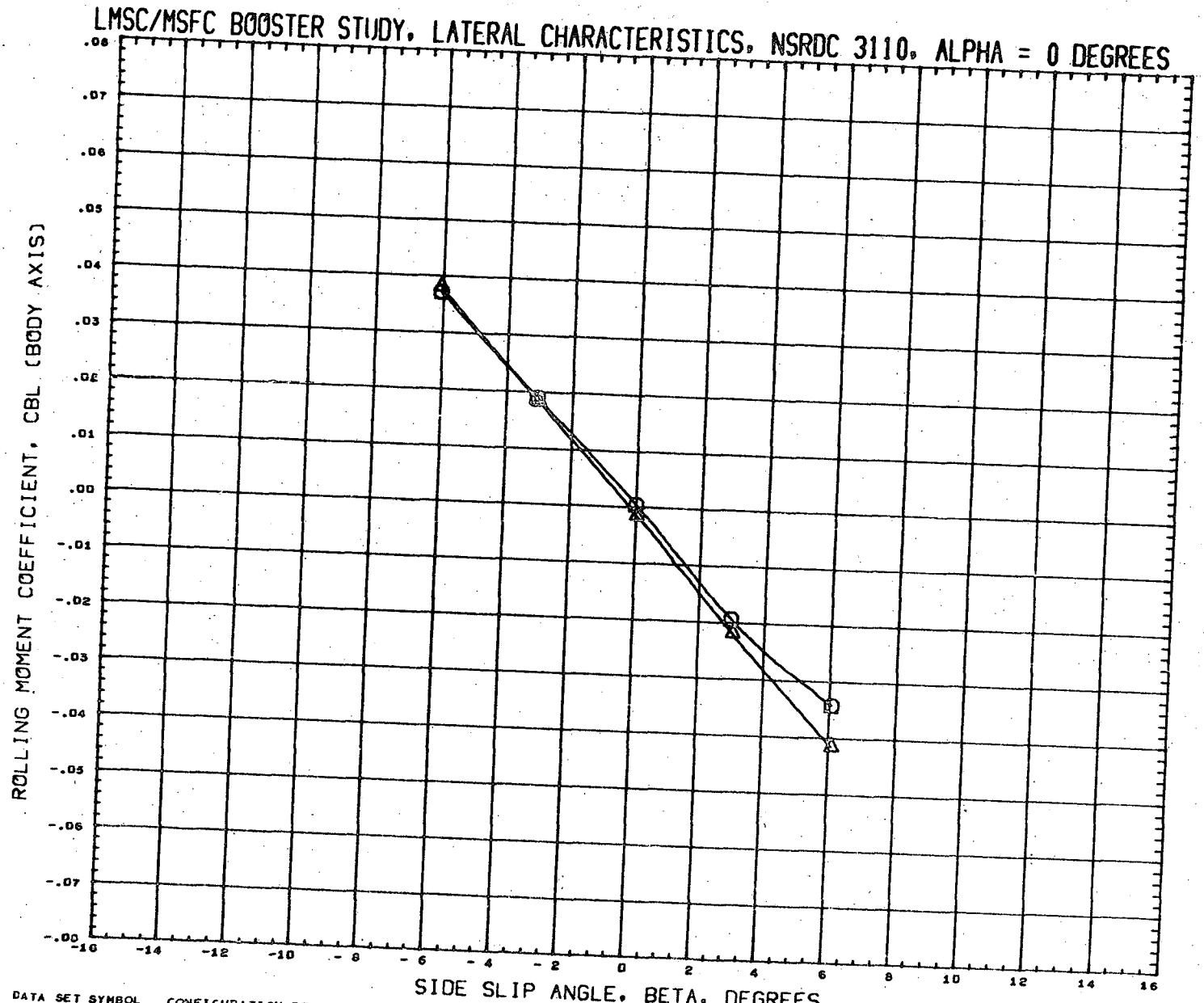

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION |
|---|---|---|
| (RN2065) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 |
| (RN2097) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 |

| INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|
| 3.000 | 1.000 | 0.000 | 1.000 |
| 3.000 | 1.000 | 3.000 | 1.000 |

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

MACH 0.381



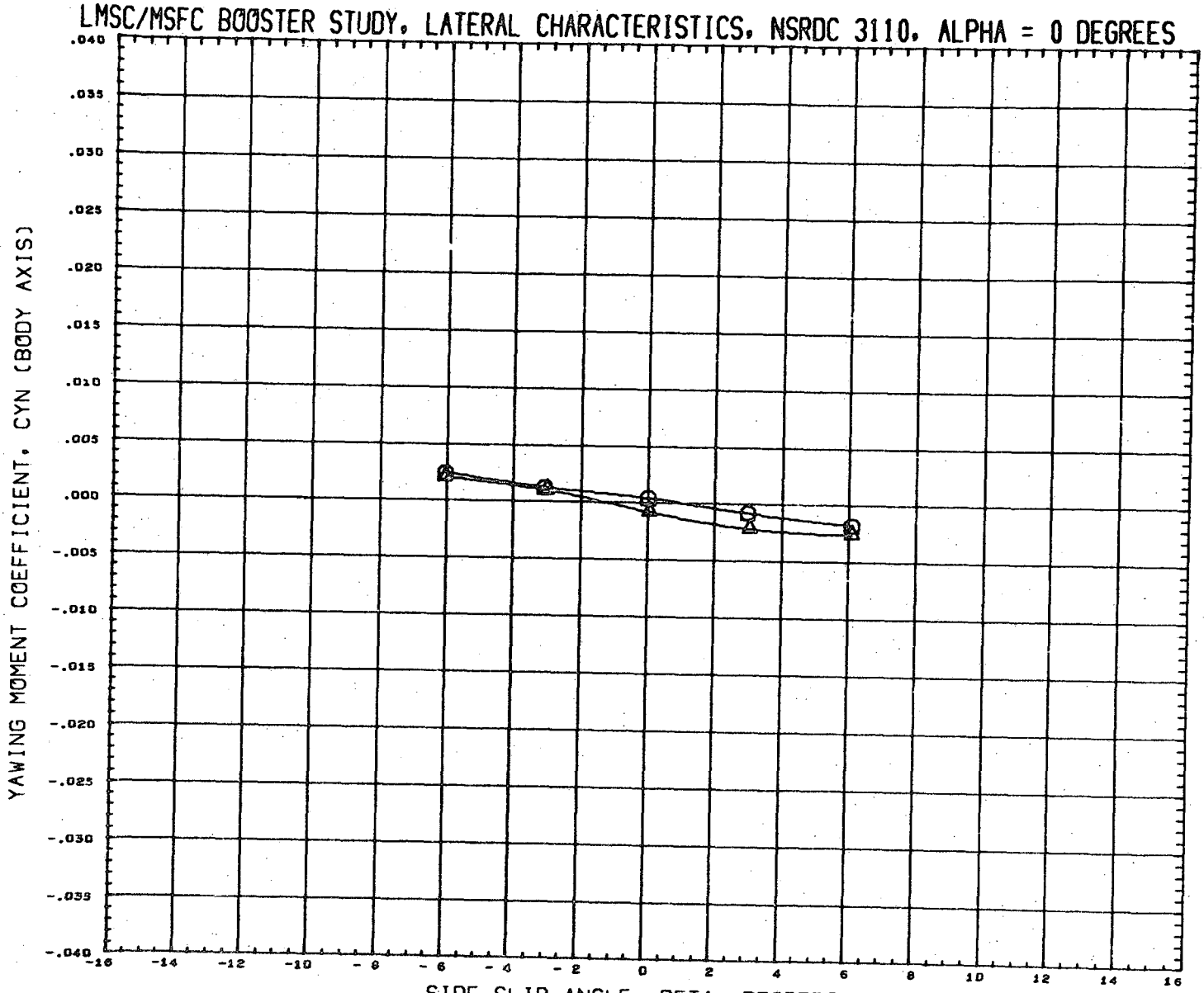

| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION |
|---|---|---|
| (RN2066) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 |
| (RN2098) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 |

| INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|
| 3.000 | 1.000 | 0.000 | 1.000 |
| 3.000 | 1.000 | 3.000 | 1.000 |

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

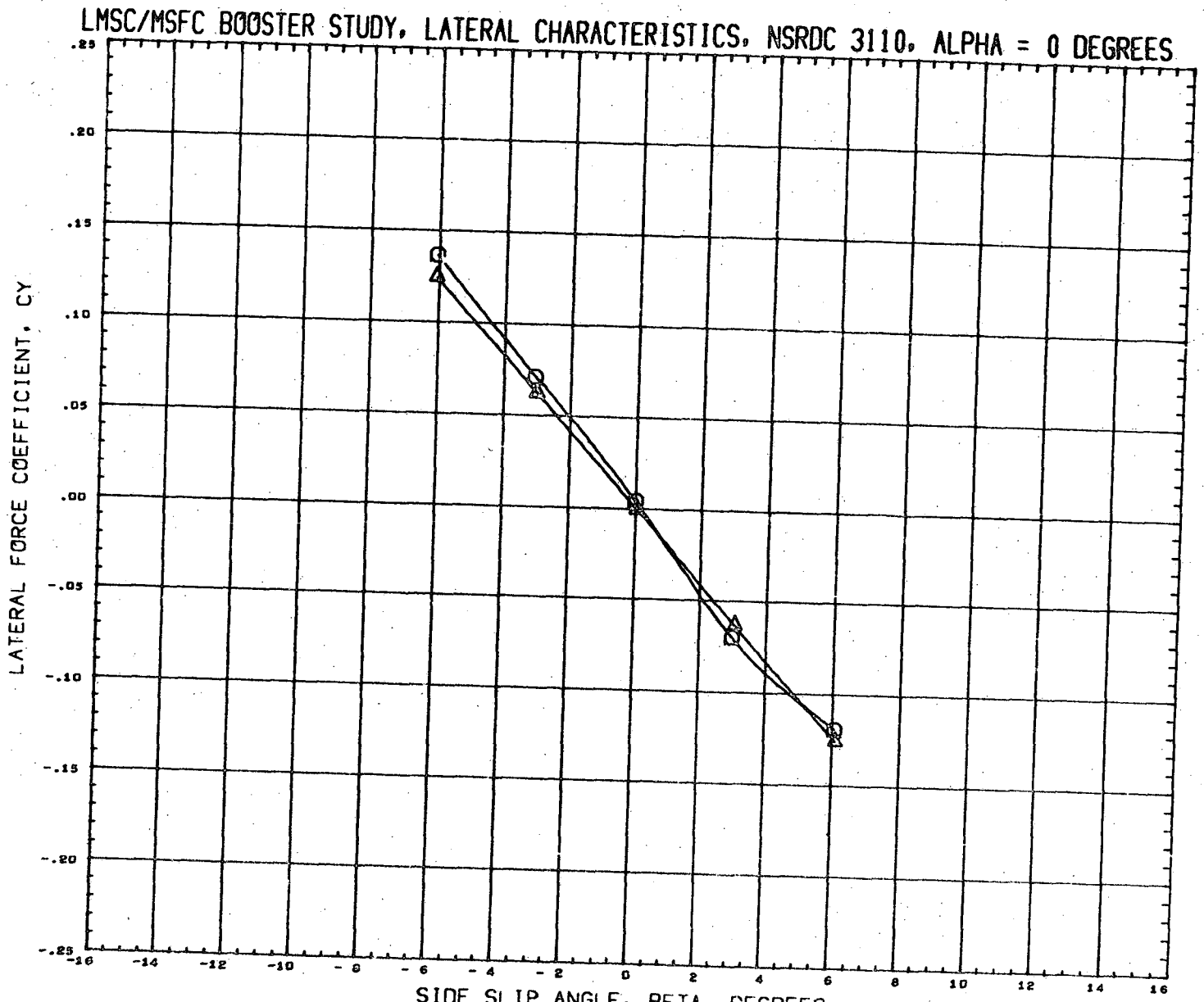
MACH 0.381




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDFOS | INCIDW | WNGFOS |
|---|---|---|---|---|---|---|
| (RN2066) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 1.000 | 0.000 | 1.000 |
| (RN2098) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 1.000 | 3.000 | 1.000 |

MACH 0.361

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |




| DATA SET SYMBOL | CONFIGURATION DESCRIPTION |
|---|---|
| (RN2066) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 |
| (RN2098) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 |

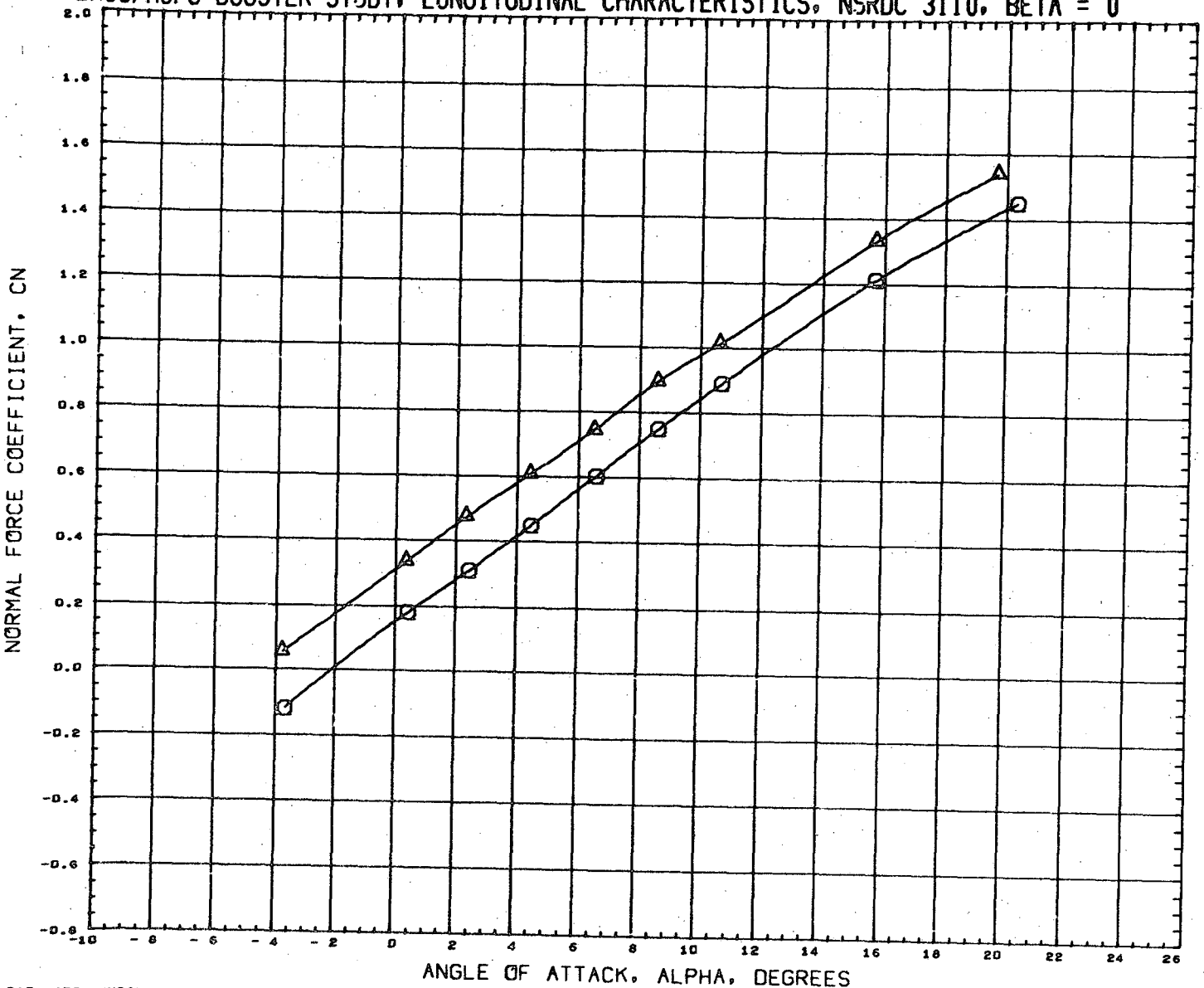
| INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|
| 3.000 | 1.000 | 0.000 | 1.000 |
| 3.000 | 1.000 | 3.000 | 1.000 |

MACH 0.361

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

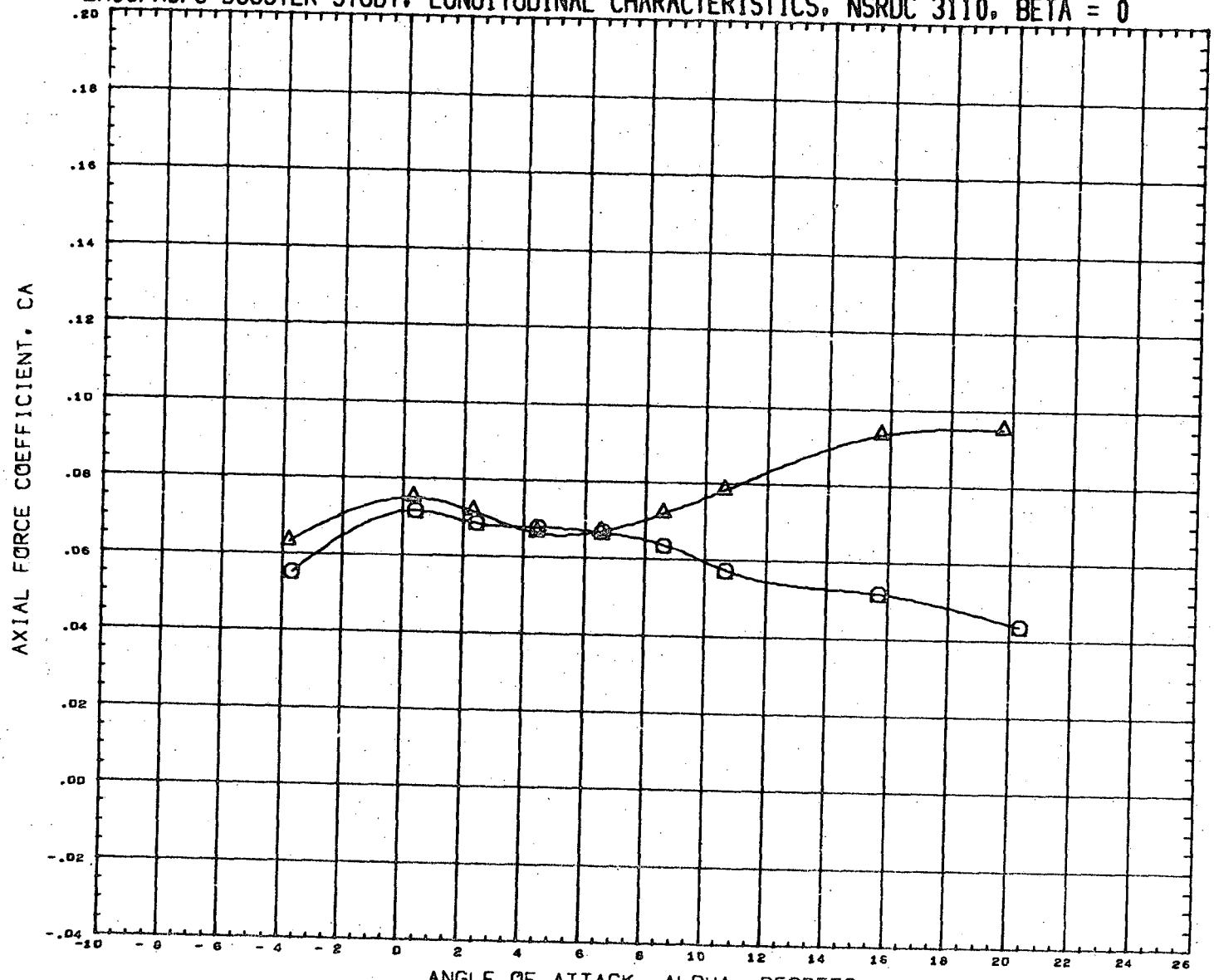



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2069) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 1.000 | 0.000 | 1.000 |
| (RN2101) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 1.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

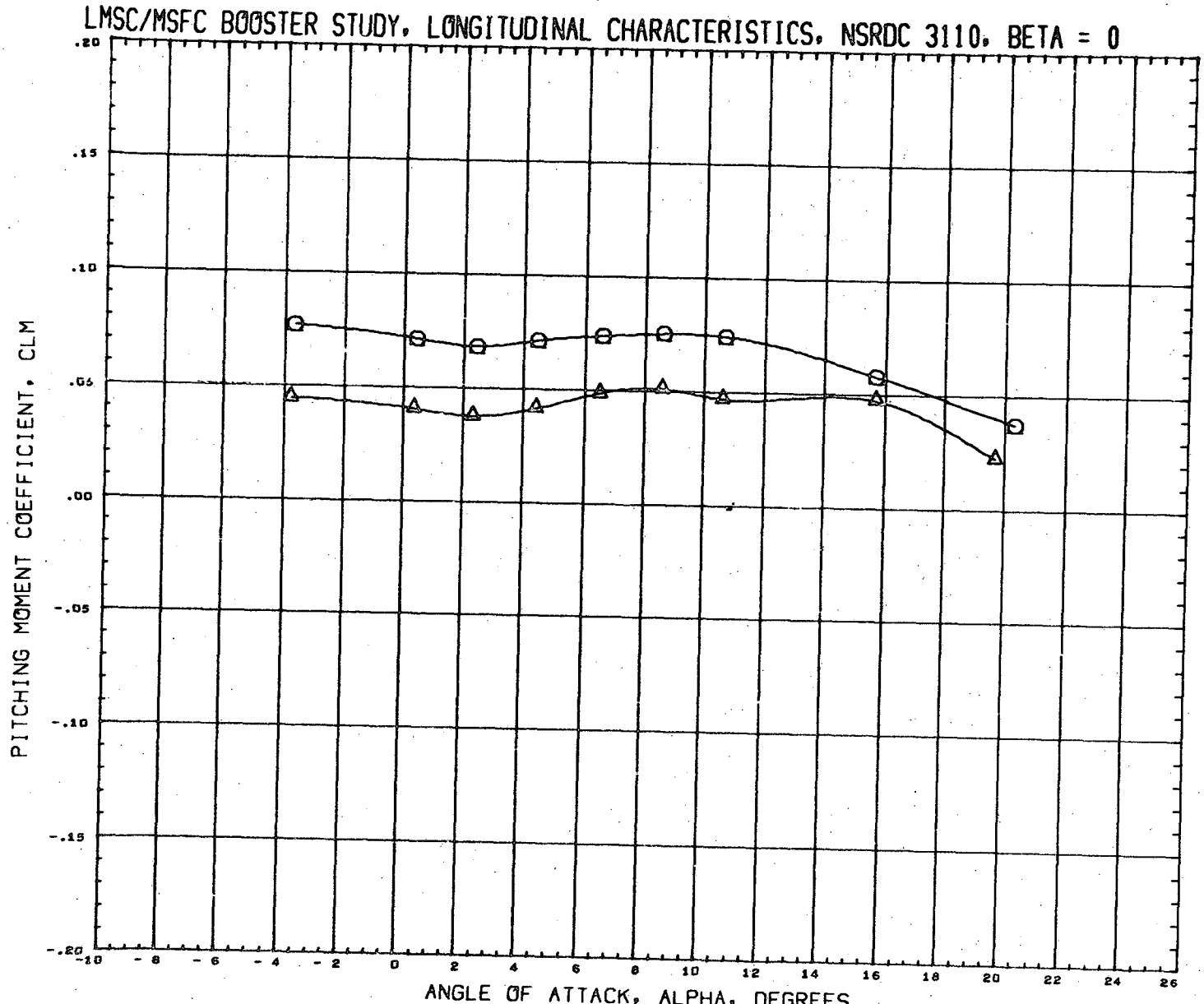
LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2069) ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 1.000 | 0.000 | 1.000 |
| (RN2101) △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 1.000 | 3.000 | 1.000 |

MACH 0.381

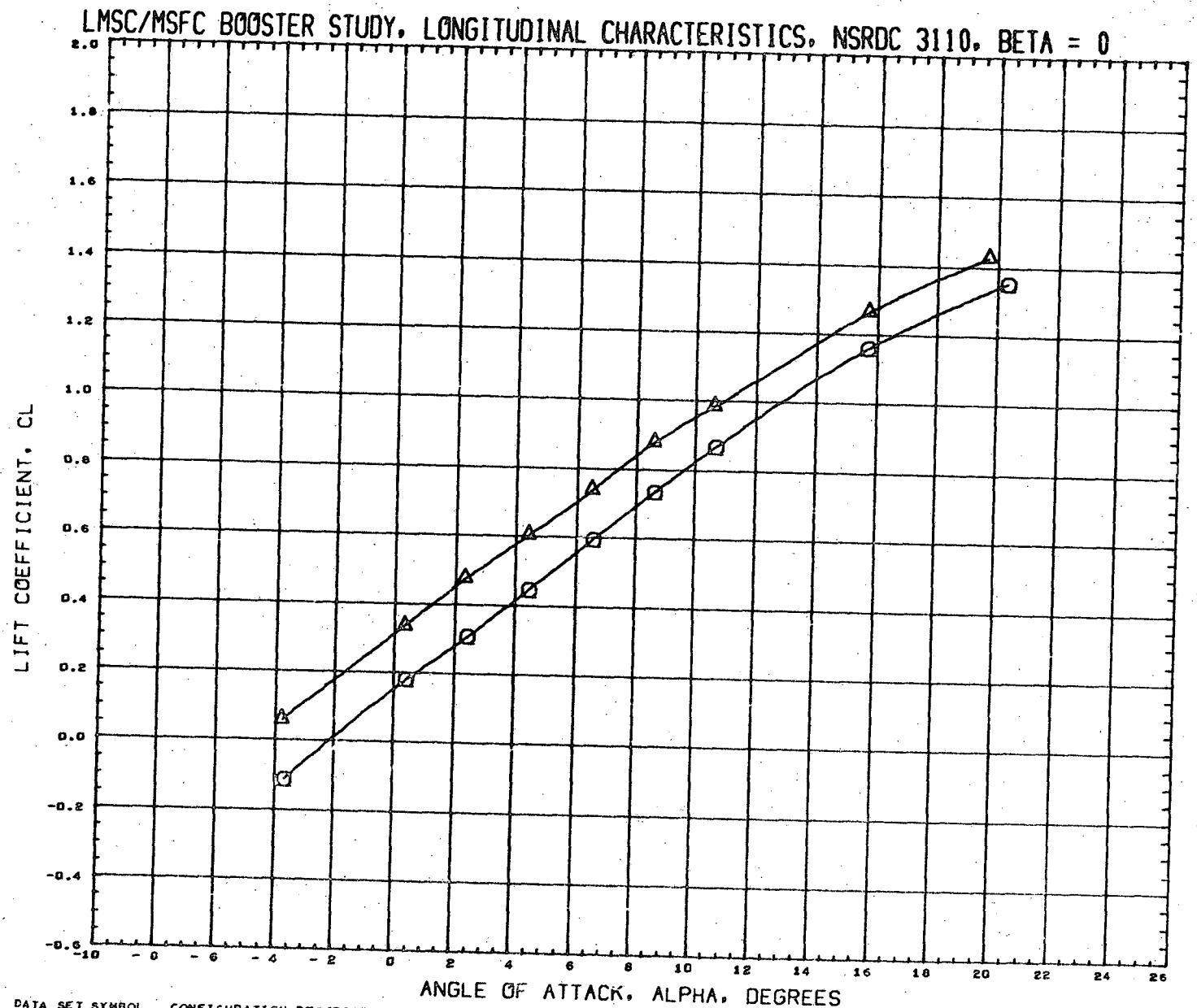
| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |




| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2069) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 1.000 | 0.000 | 1.000 |
| (RN2101) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 1.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |



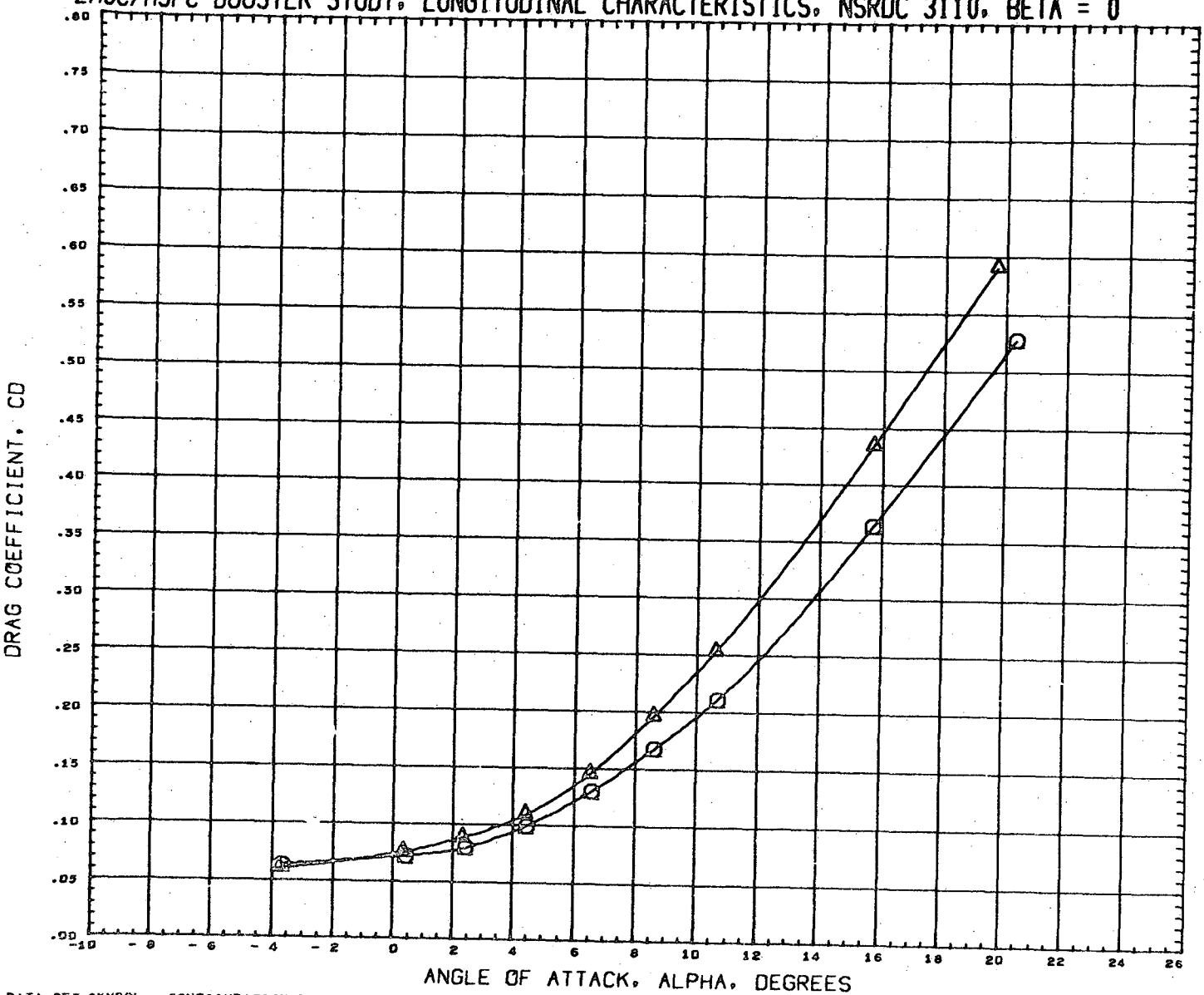

| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION |
|---|---|---|
| (RN2069) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 |
| (RN2101) | △ | NSRDC-3110,MSFC/LHSC BOOSTER B1C1F1W1V1 |

| INCIDC | CNDFOS | INCIDW | WNGPOS |
|---|---|---|---|
| 15.000 | 1.000 | 0.000 | 1.000 |
| 15.000 | 1.000 | 3.000 | 1.000 |

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

MACH 0.381

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

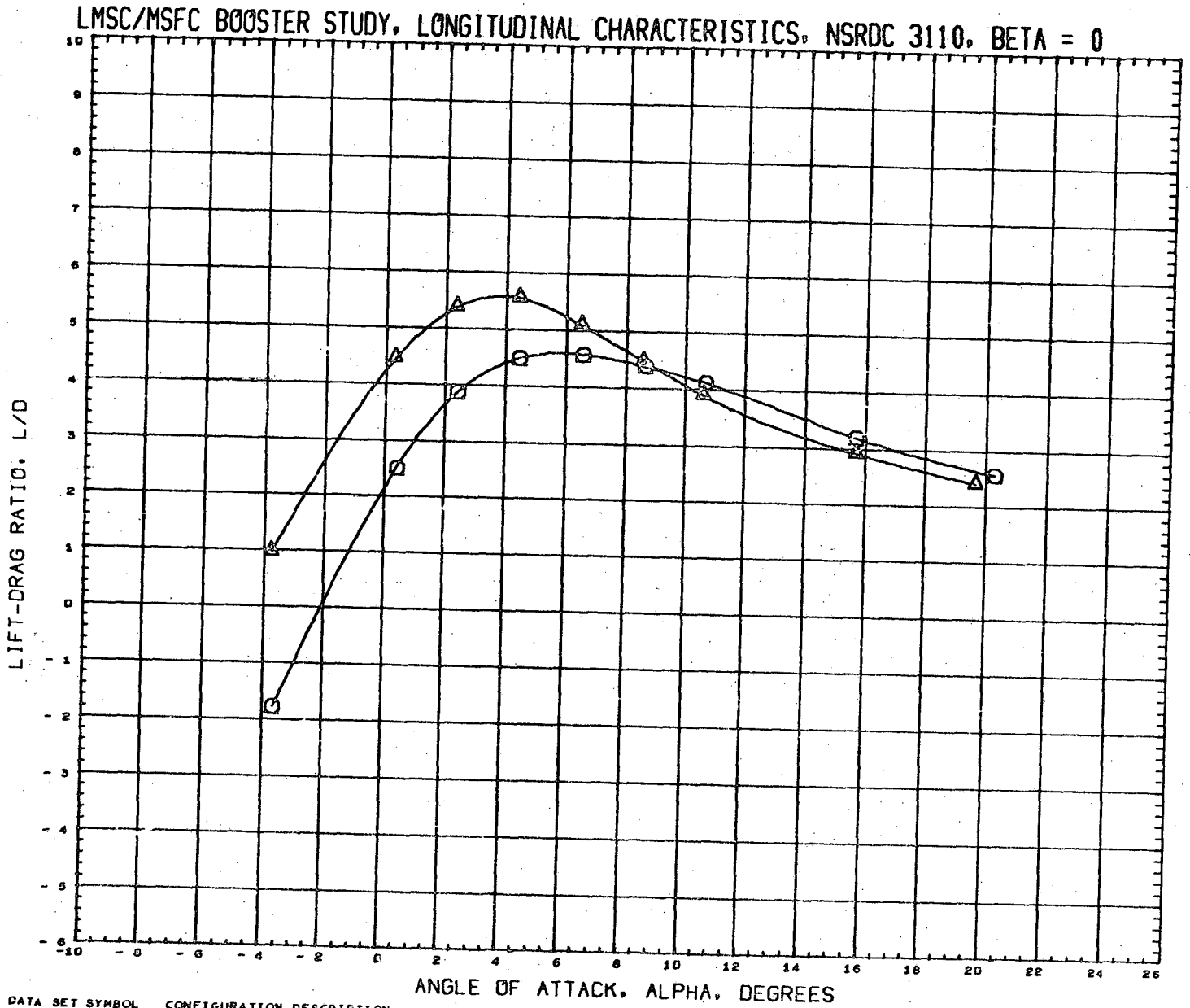



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2969) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 1.000 | 0.000 | 1.000 |
| (RN2101) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 1.000 | 3.000 | 1.000 |

MACH 0.381

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

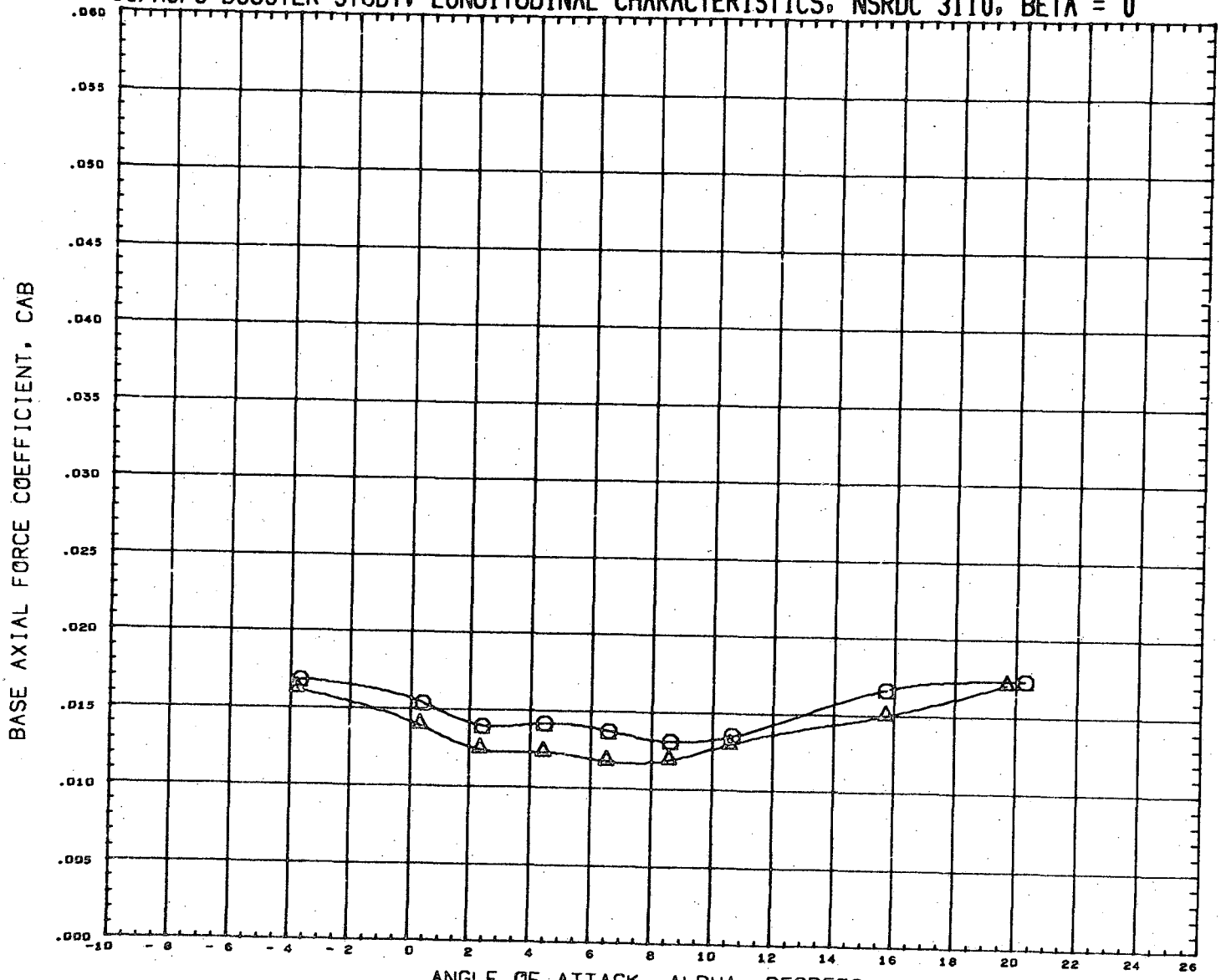



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2069) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 1.000 | 0.000 | 1.000 |
| (RN2101) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 1.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

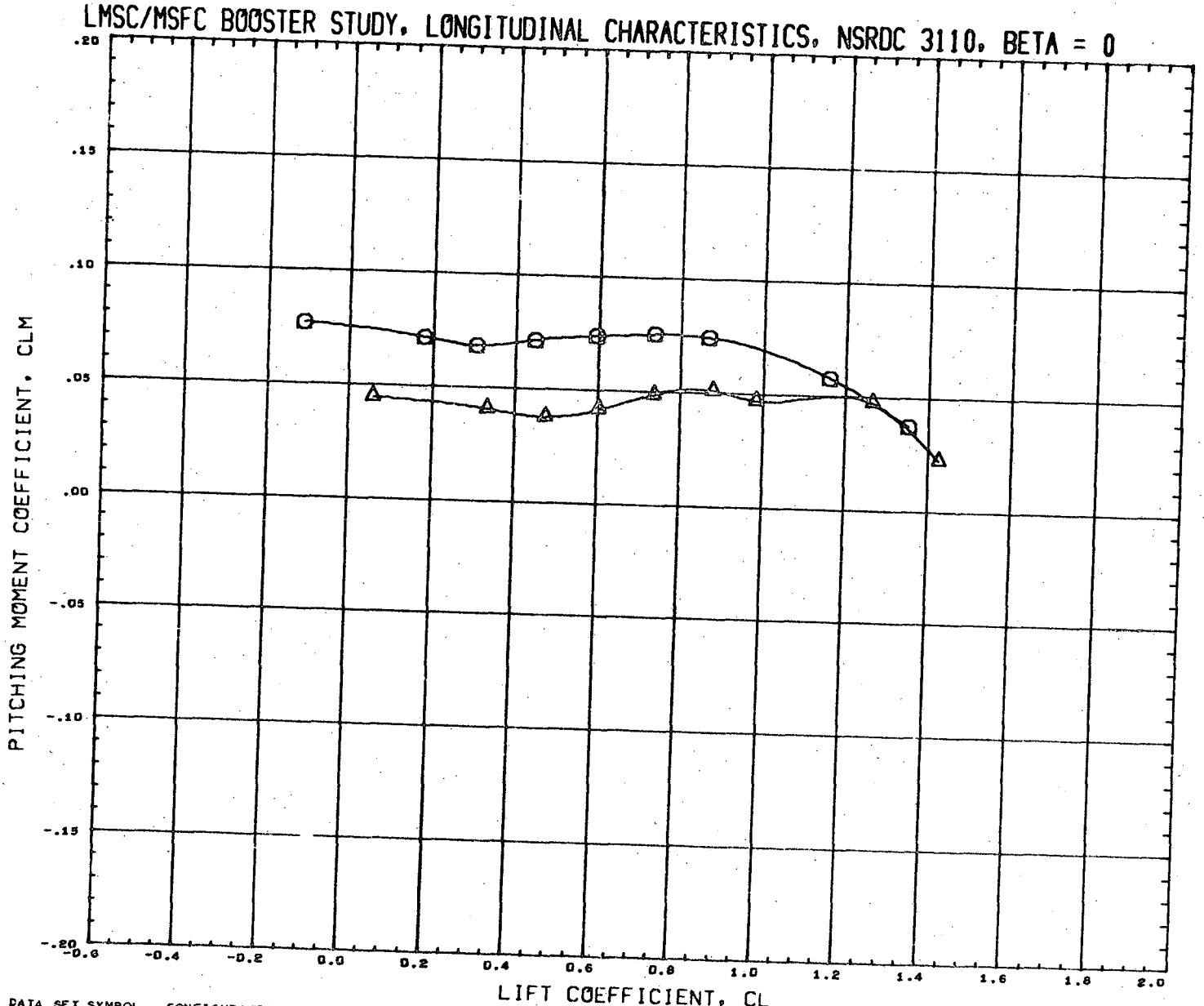
LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2069) ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 1.000 | 0.000 | 1.000 |
| (RN2101) △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 1.000 | 3.000 | 1.000 |

MACH 0.361

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |




| DATA SET SYMBOL | CONFIGURATION DESCRIPTION |
|---|---|
| (RN2069) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 |
| (RN2101) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 |

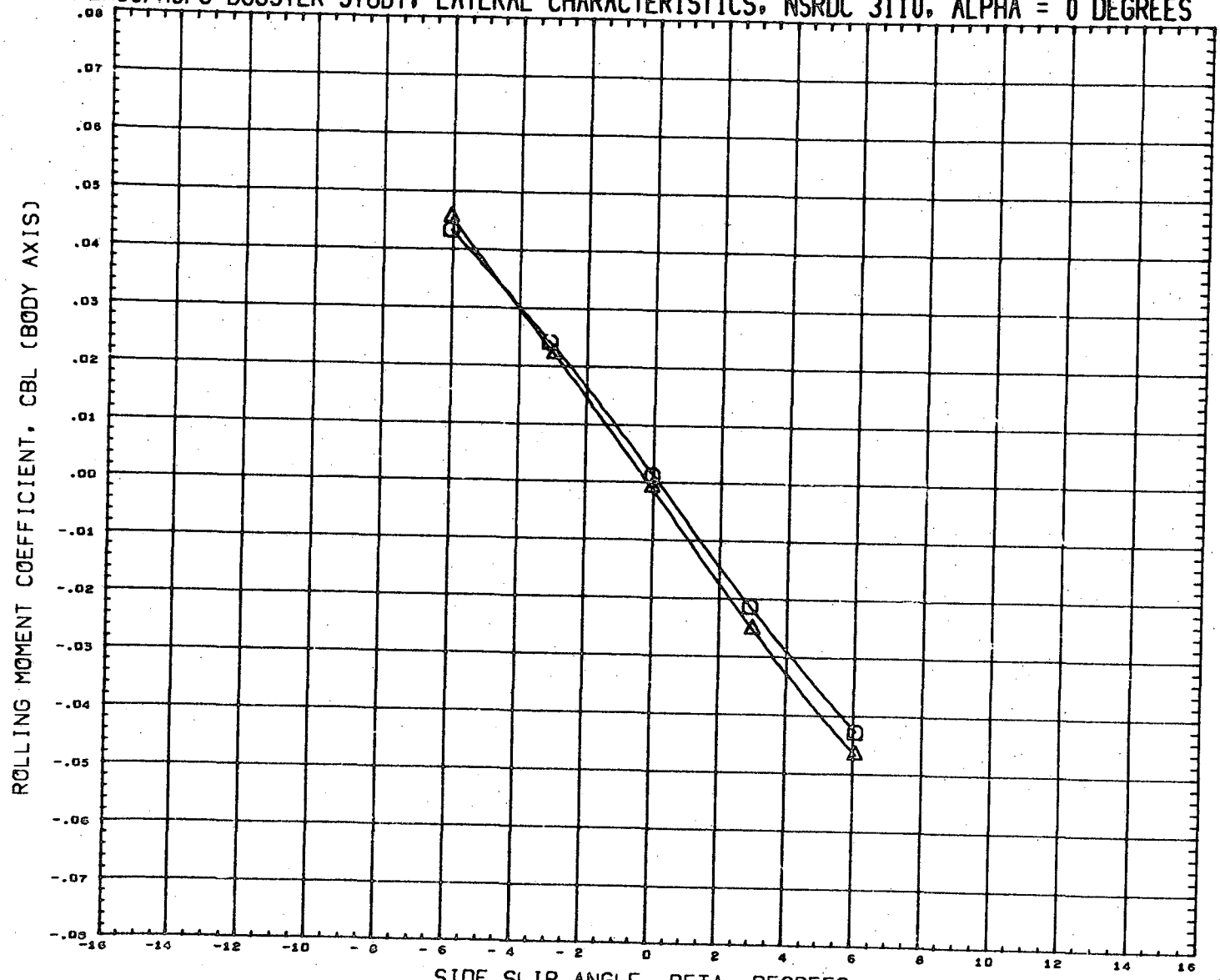
| INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|
| 15.000 | 1.000 | 0.000 | 1.000 |
| 15.000 | 1.000 | 3.000 | 1.000 |

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

MACH 0.381

LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES



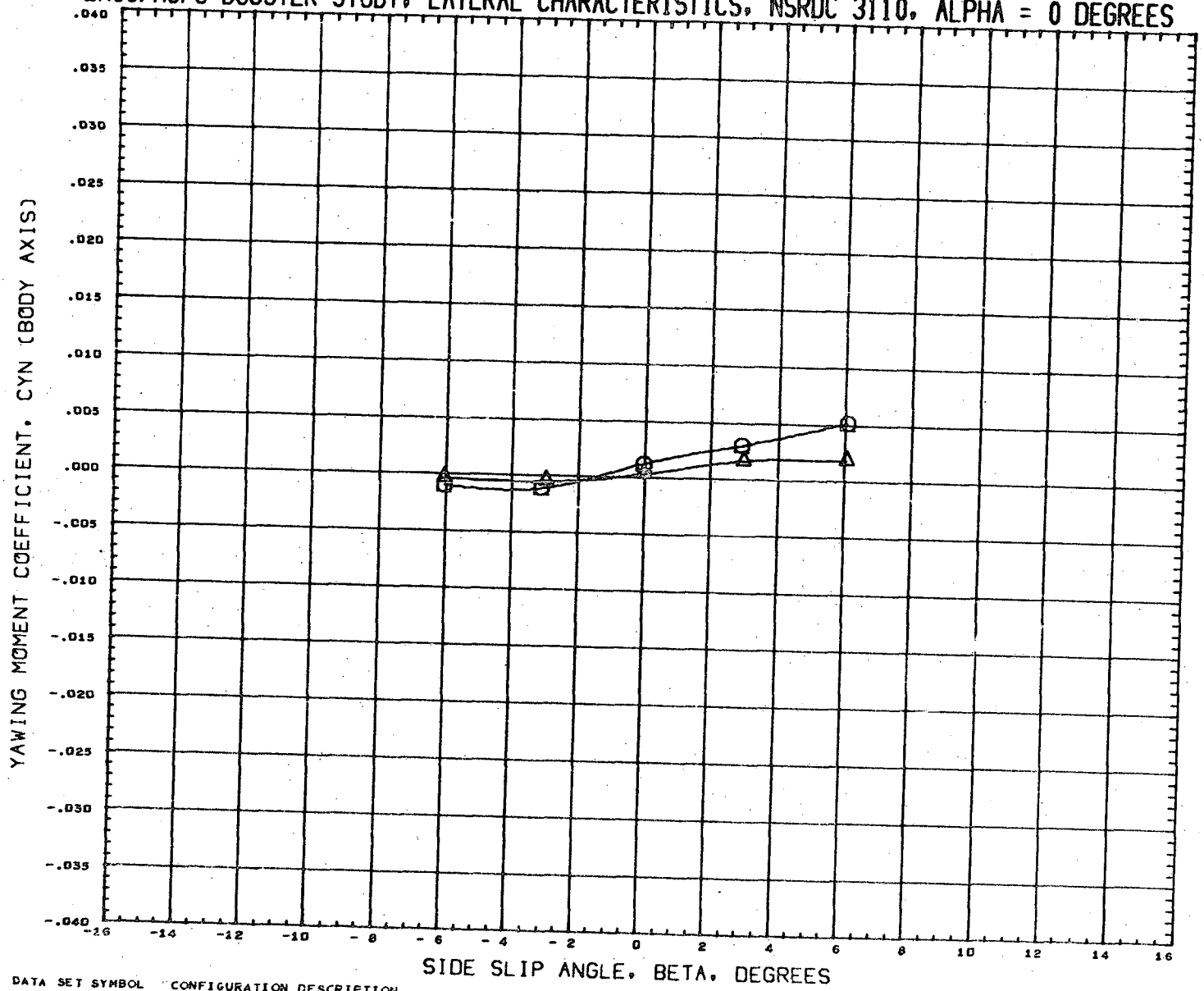

| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2070) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 1.000 | 0.000 | 1.000 |
| (RN2101) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 1.000 | 3.000 | 1.000 |

MACH 0.379

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BØØSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

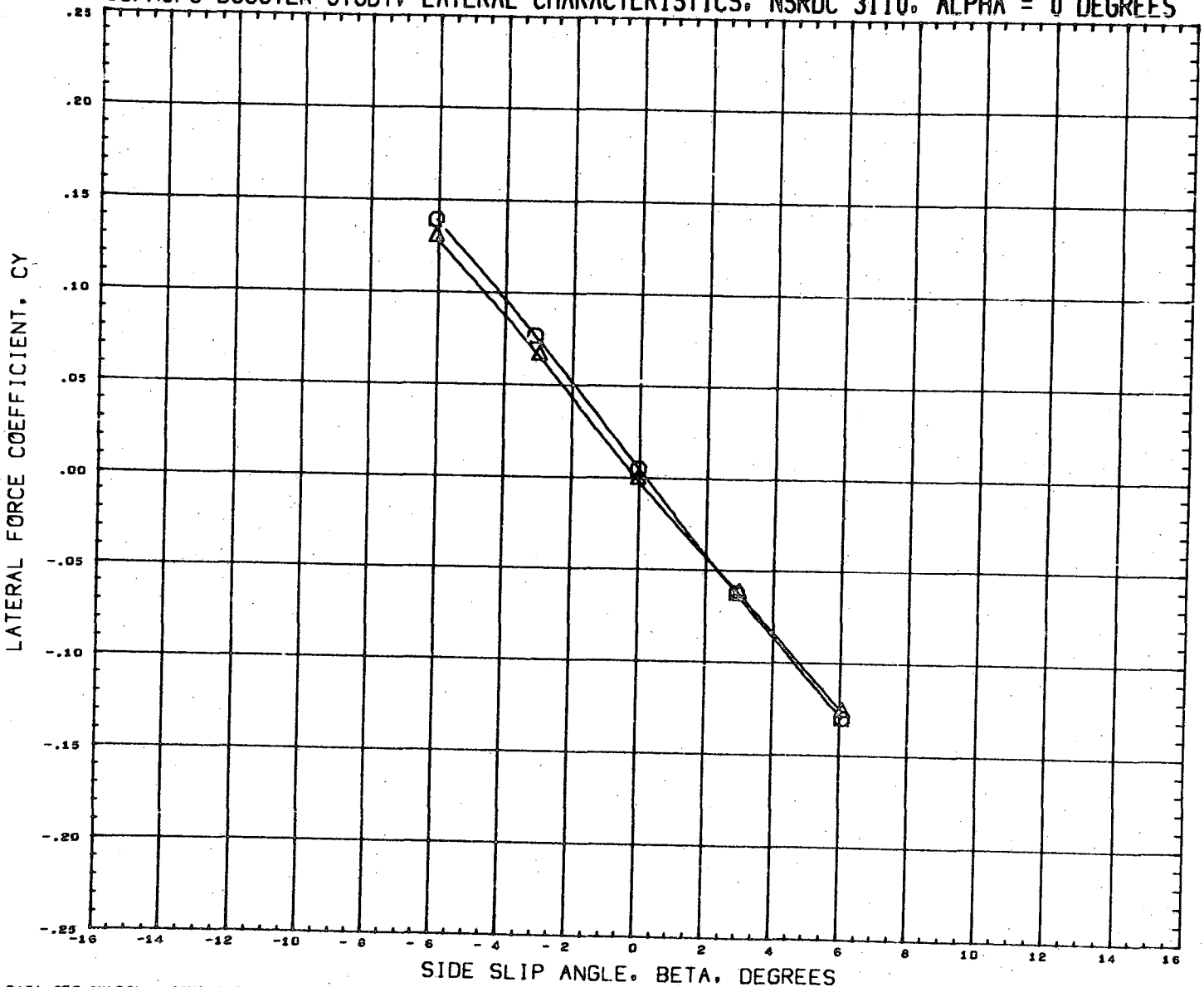



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2070) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 1.000 | 0.000 | 1.000 |
| (RN2102) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 1.000 | 3.000 | 1.000 |

MACH 0.379

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

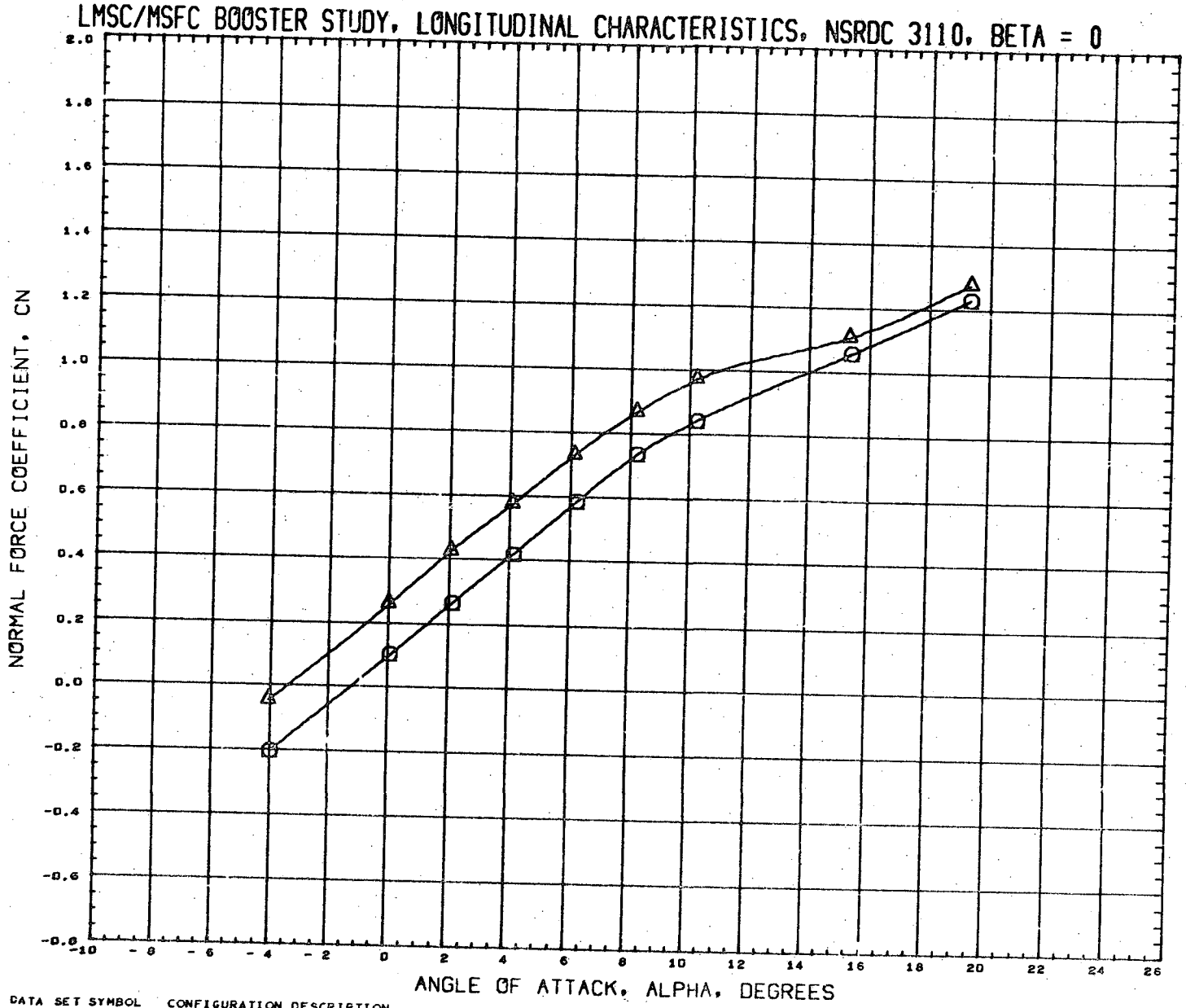



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2070) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 1.000 | 0.000 | 1.000 |
| (RN2102) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 1.000 | 3.000 | 1.000 |

MACH 0.379

REFERENCE INFORMATION

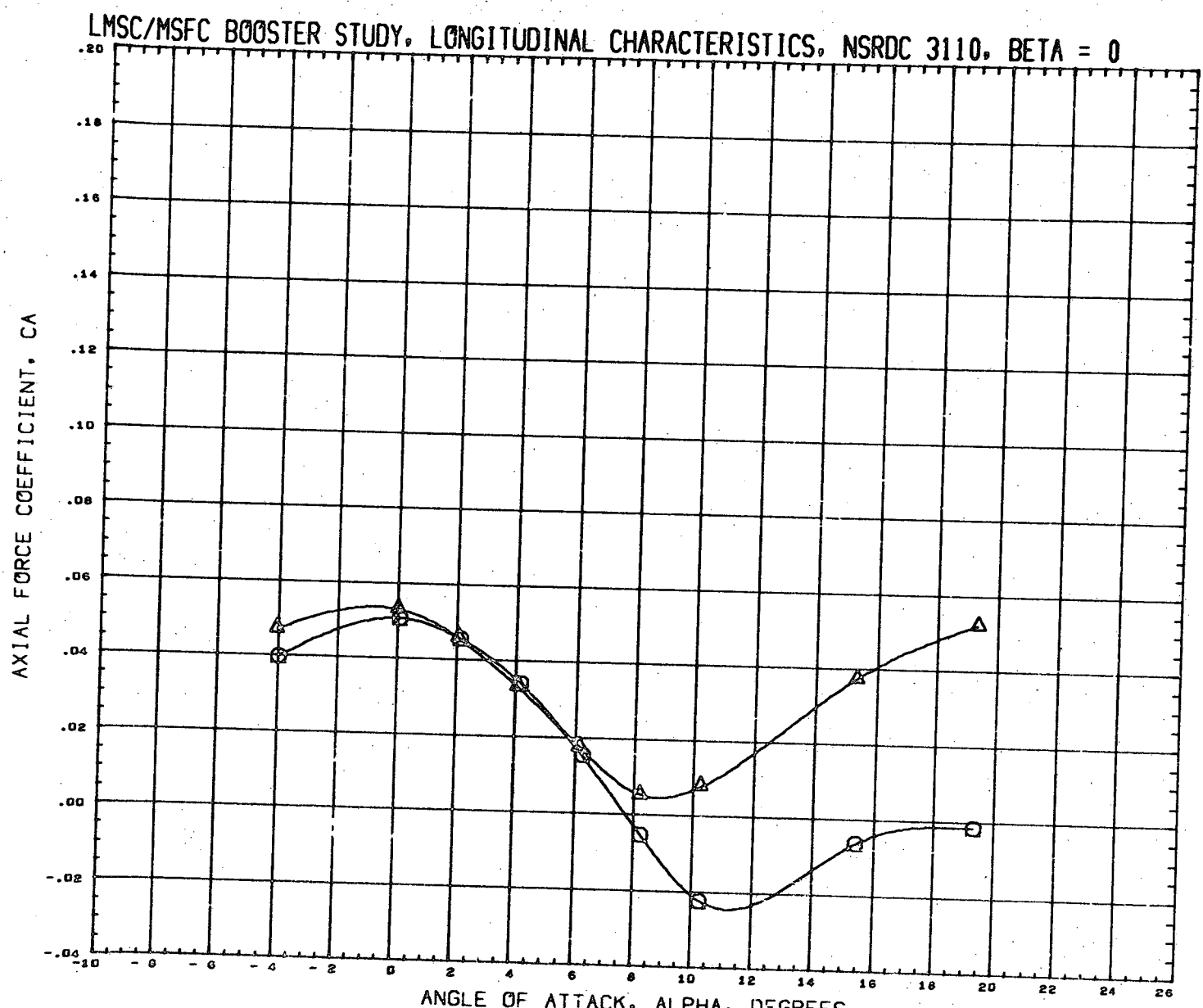
| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |




| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2073) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 2.000 | 0.000 | 1.000 |
| (RN2105) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 2.000 | 3.000 | 1.000 |

MACH 0.361

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

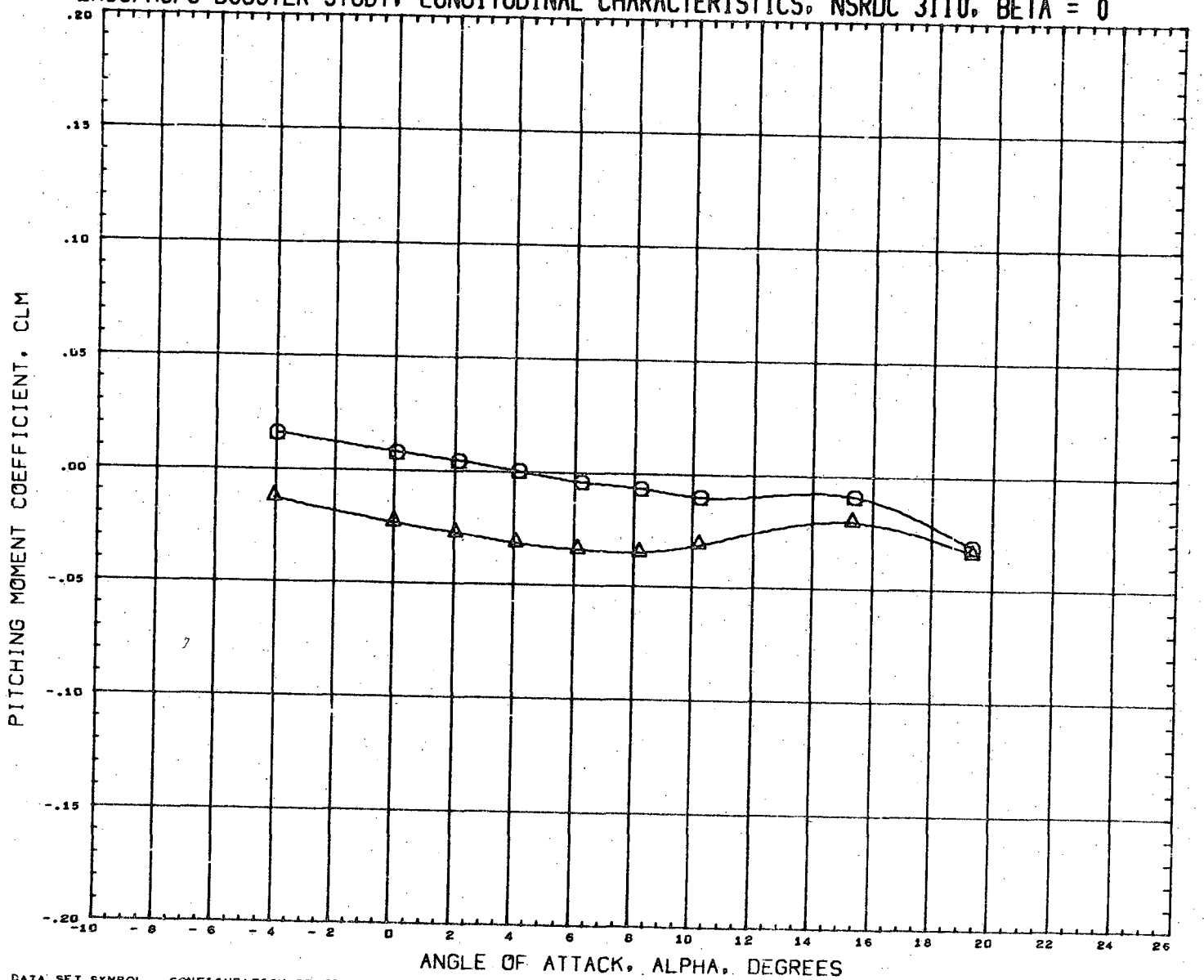



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2073) ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 2.000 | 0.000 | 1.000 |
| (RN2105) △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 2.000 | 3.000 | 1.000 |

MACH 0.301

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0



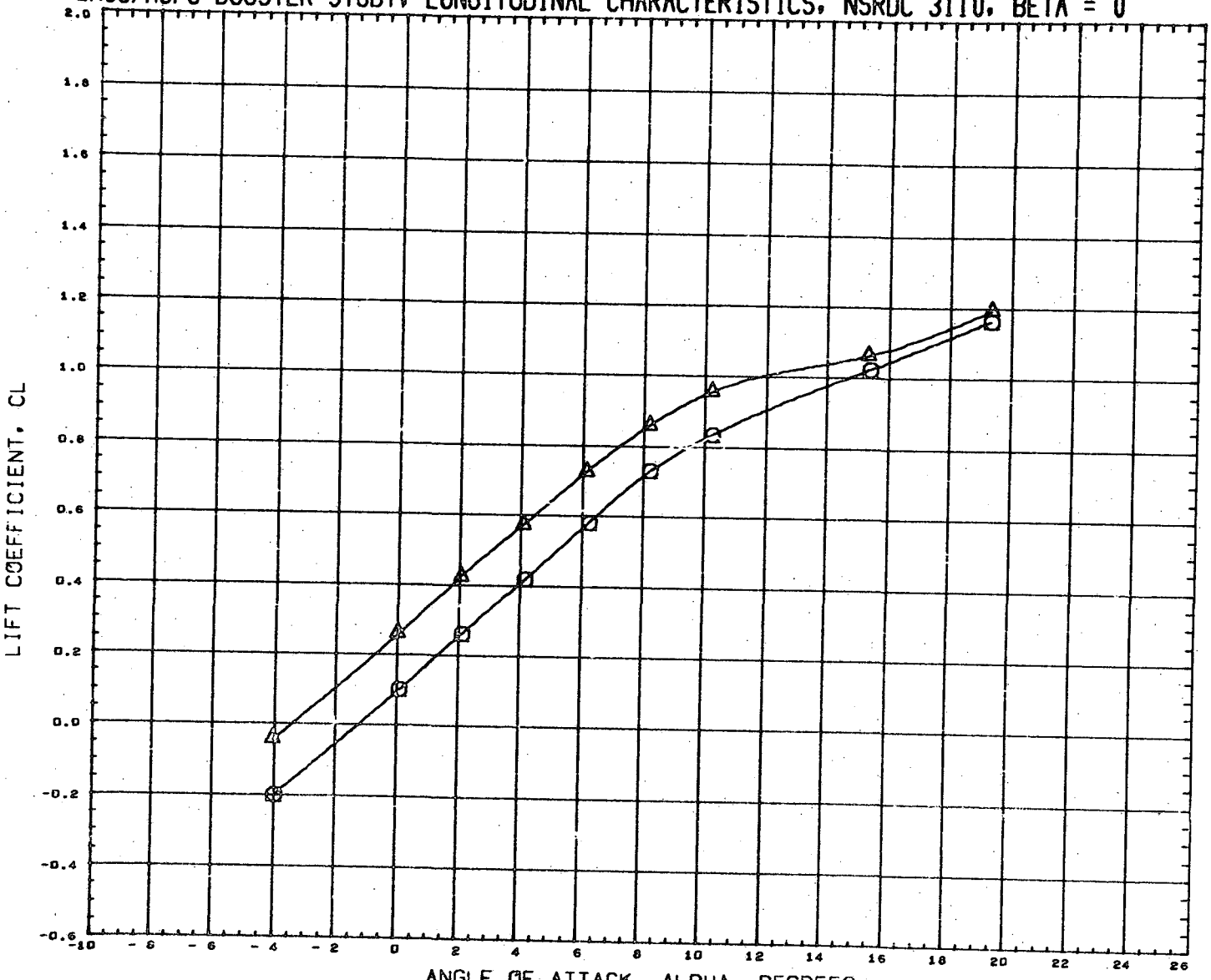

| DATA SET SYMBOL | CONFIGURATION DESCRIPTION |
|---|---|
| (RN2073) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 |
| (RN2105) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 |

| INCIDC | CNDFOS | INCIDW | WNGFOS |
|---|---|---|---|
| 3.000 | 2.000 | 0.000 | 1.000 |
| 3.000 | 2.000 | 3.000 | 1.000 |

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

MACH 0.381

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

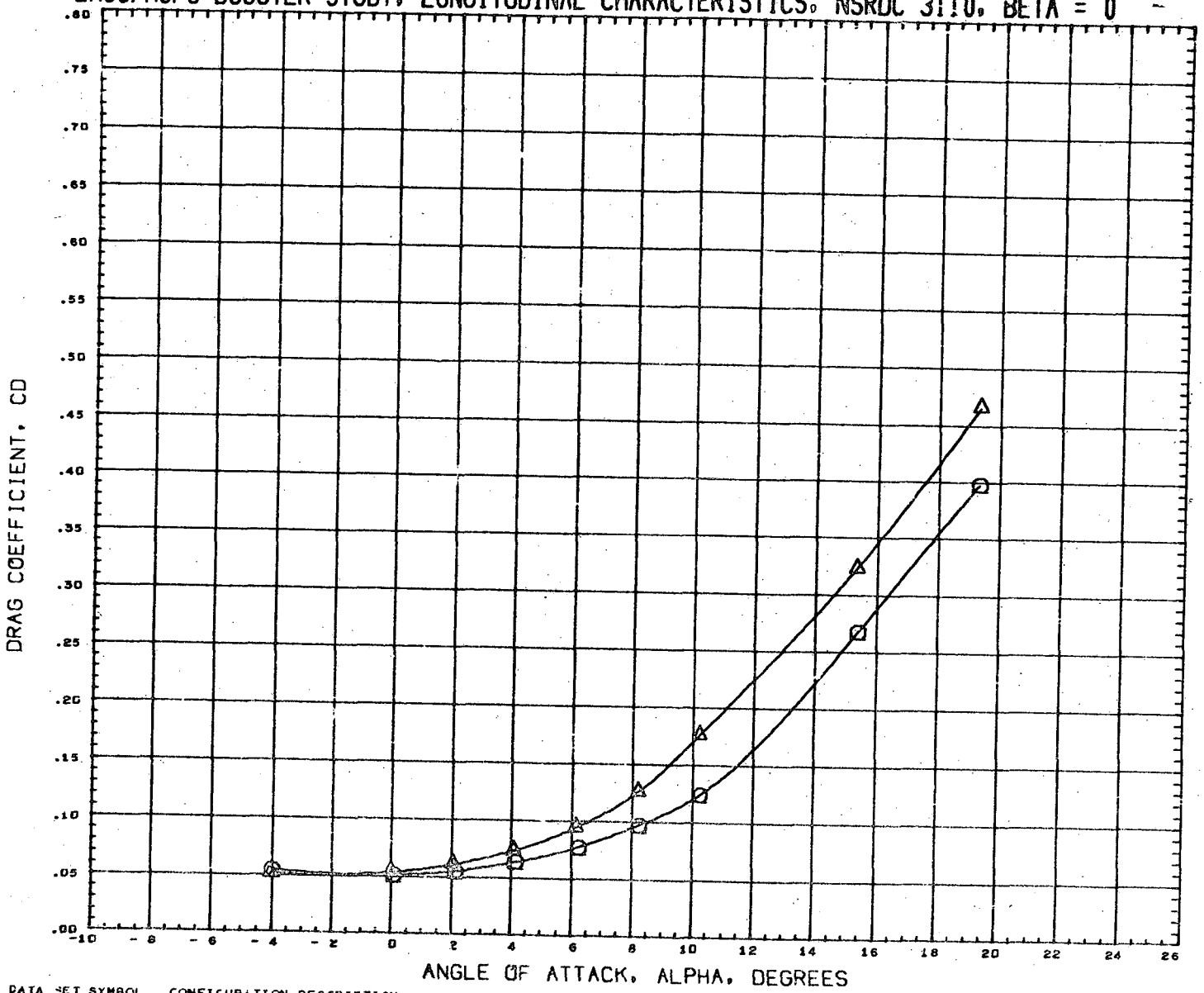



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2073) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 2.000 | 0.000 | 1.000 |
| (RN2105) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 2.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

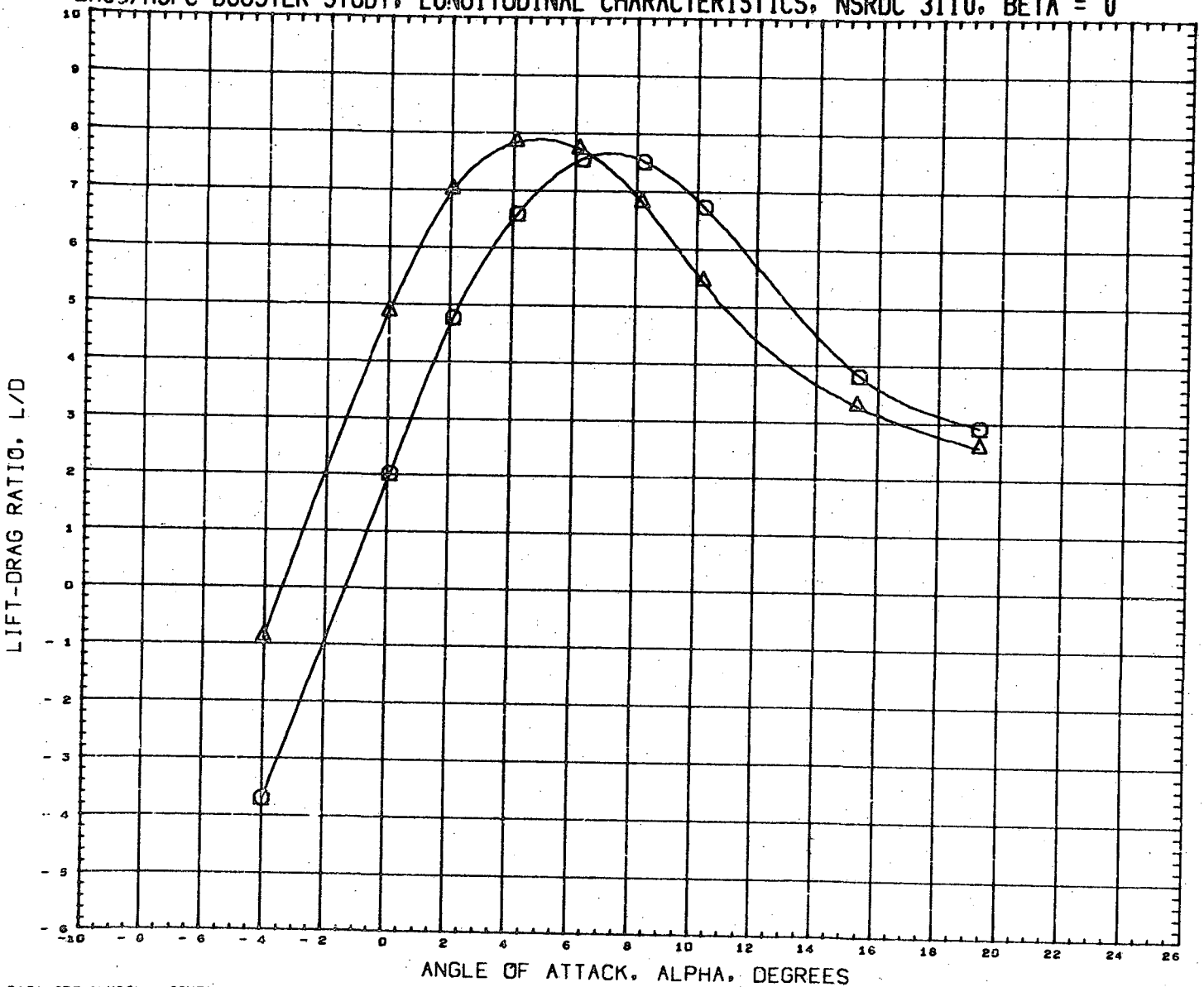



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2073) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 2.000 | 0.000 | 1.000 |
| (RN2105) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 2.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0



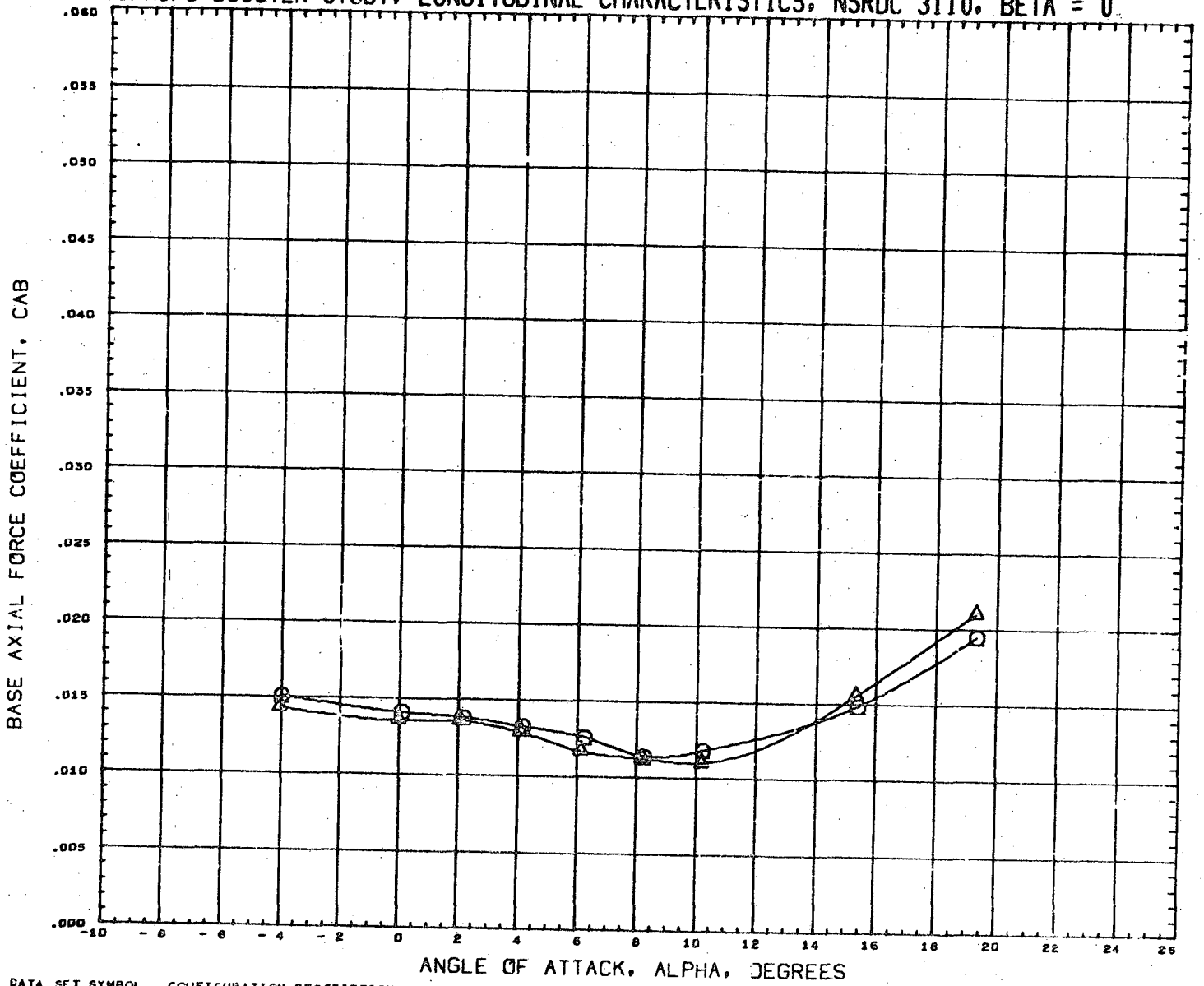

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION |
|---|---|---|
| (RN2073) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 |
| (RN2105) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 |

| INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|
| 3.000 | 2.000 | 0.000 | 1.000 |
| 3.900 | 2.000 | 3.000 | 1.000 |

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

MACH 0.381

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

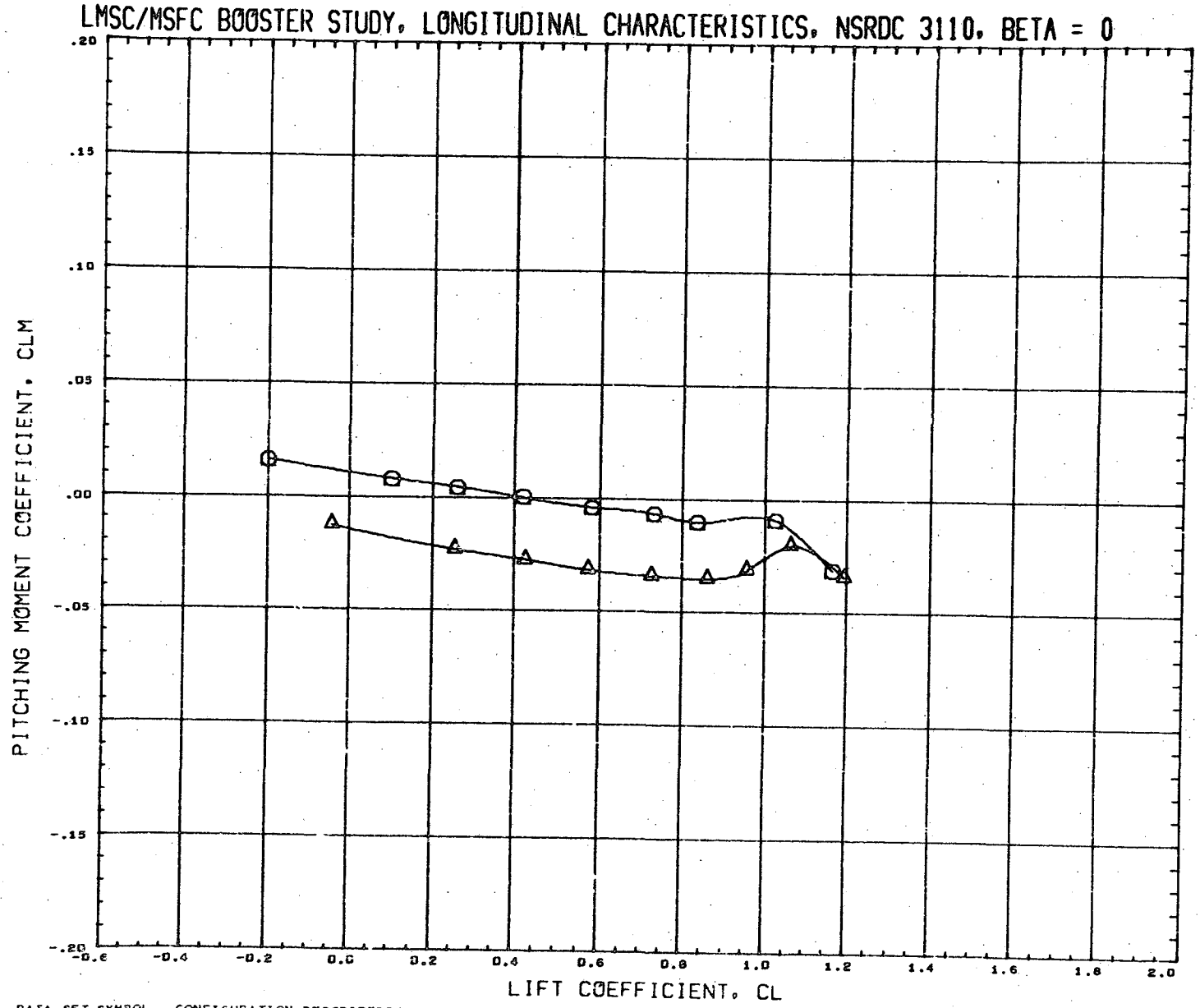



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION |
|---|---|---|
| (RN2073) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 |
| (RN2105) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 |

| INCIDC | CNDFOS | INCIDW | WNGFOS |
|---|---|---|---|
| 3.000 | 2.000 | 0.000 | 1.000 |
| 3.000 | 2.000 | 3.000 | 1.000 |

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

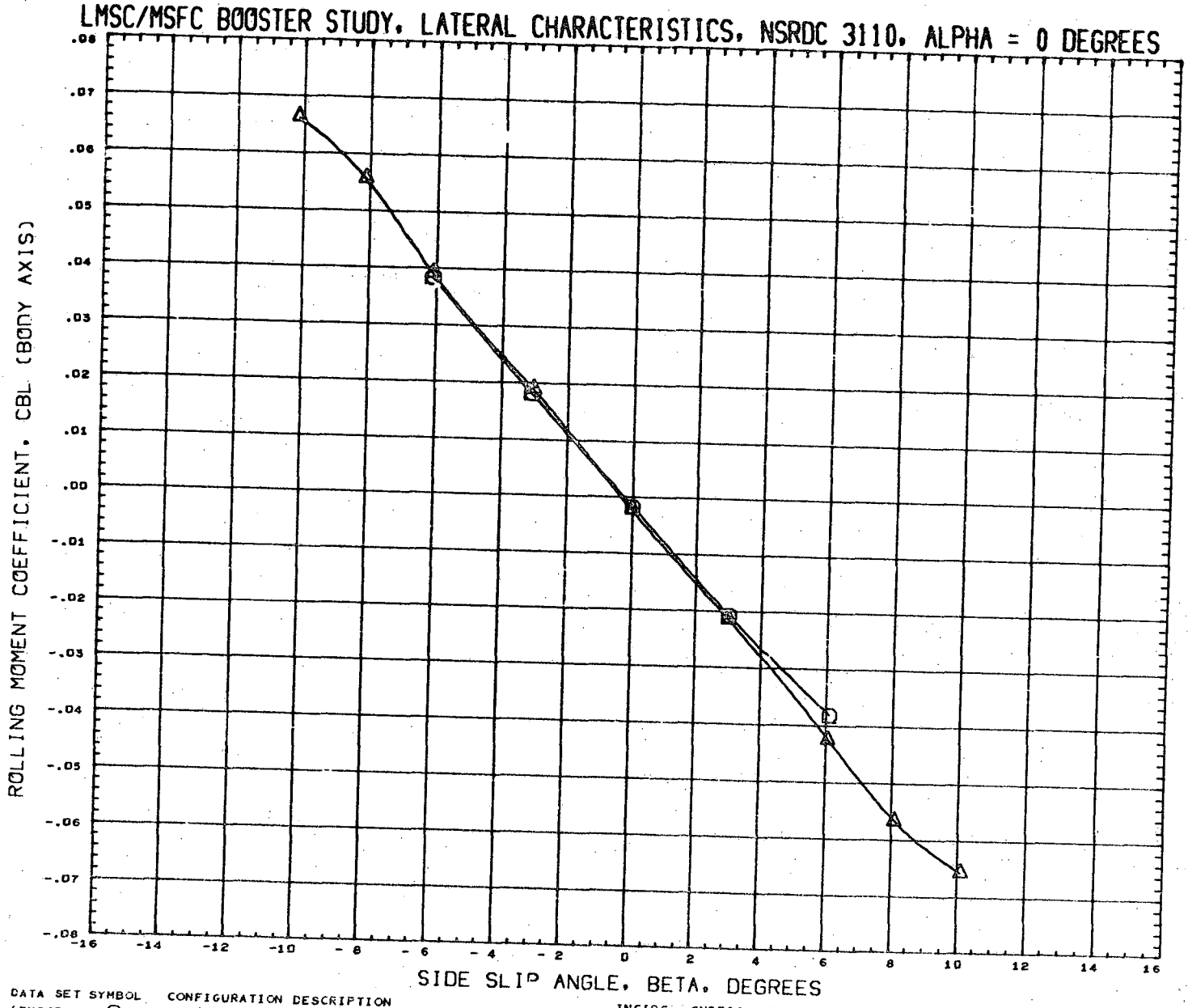
MACH 0.501




| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2073) | NSRDC-3110,MSFC/LMSC BOOSTER 2:C1F1W1V1 | 3.000 | 2.000 | 0.000 | 1.000 |
| (RN2105) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 2.000 | 3.000 | 1.000 |

MACH 0.361

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

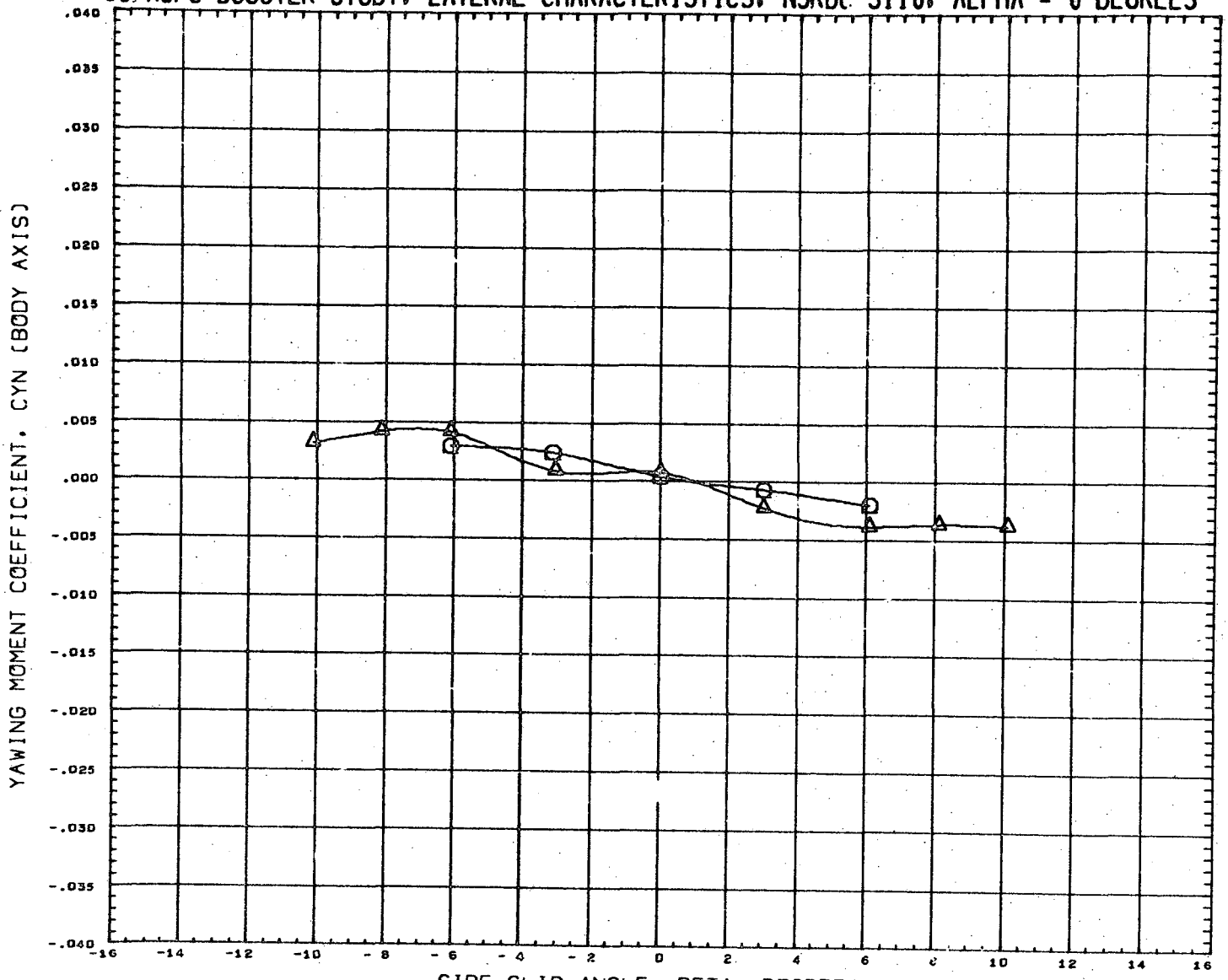



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2074) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 2.000 | 0.000 | 1.000 |
| (RN2106) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 2.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRF | 31.1400 | INCHES |
| YMRF | 0.0000 | INCHES |
| ZMRF | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY. LATERAL CHARACTERISTICS. NSRDC 3110. ALPHA = 0 DEGREES

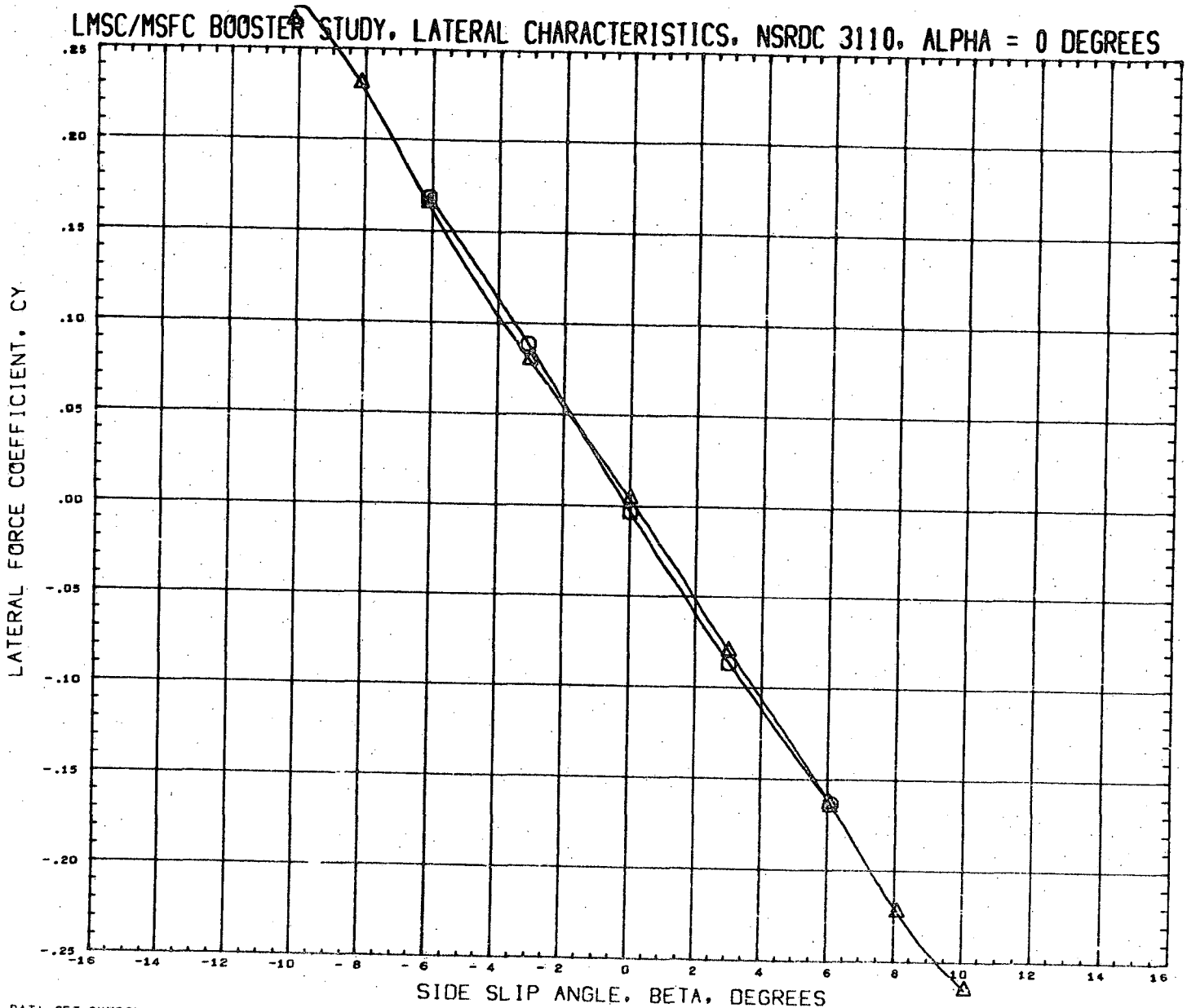



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2074) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 2.000 | 0.000 | 1.000 |
| (RN3106) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 2.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

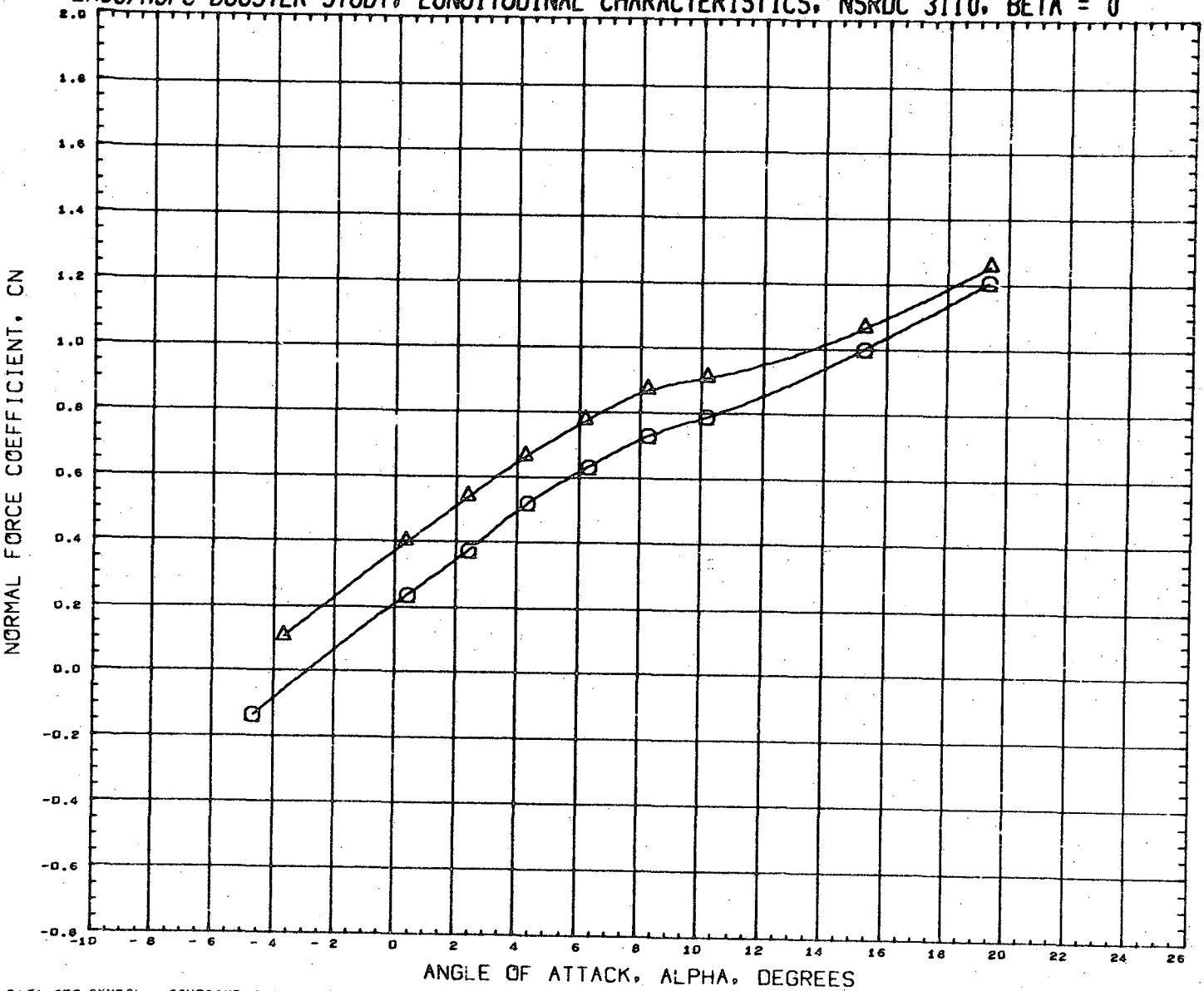



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDFOS | INCIDW | WNGFOS |
|---|---|---|---|---|---|---|
| (RN2074) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 2.000 | 0.000 | 1.000 |
| (RN2106) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 2.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

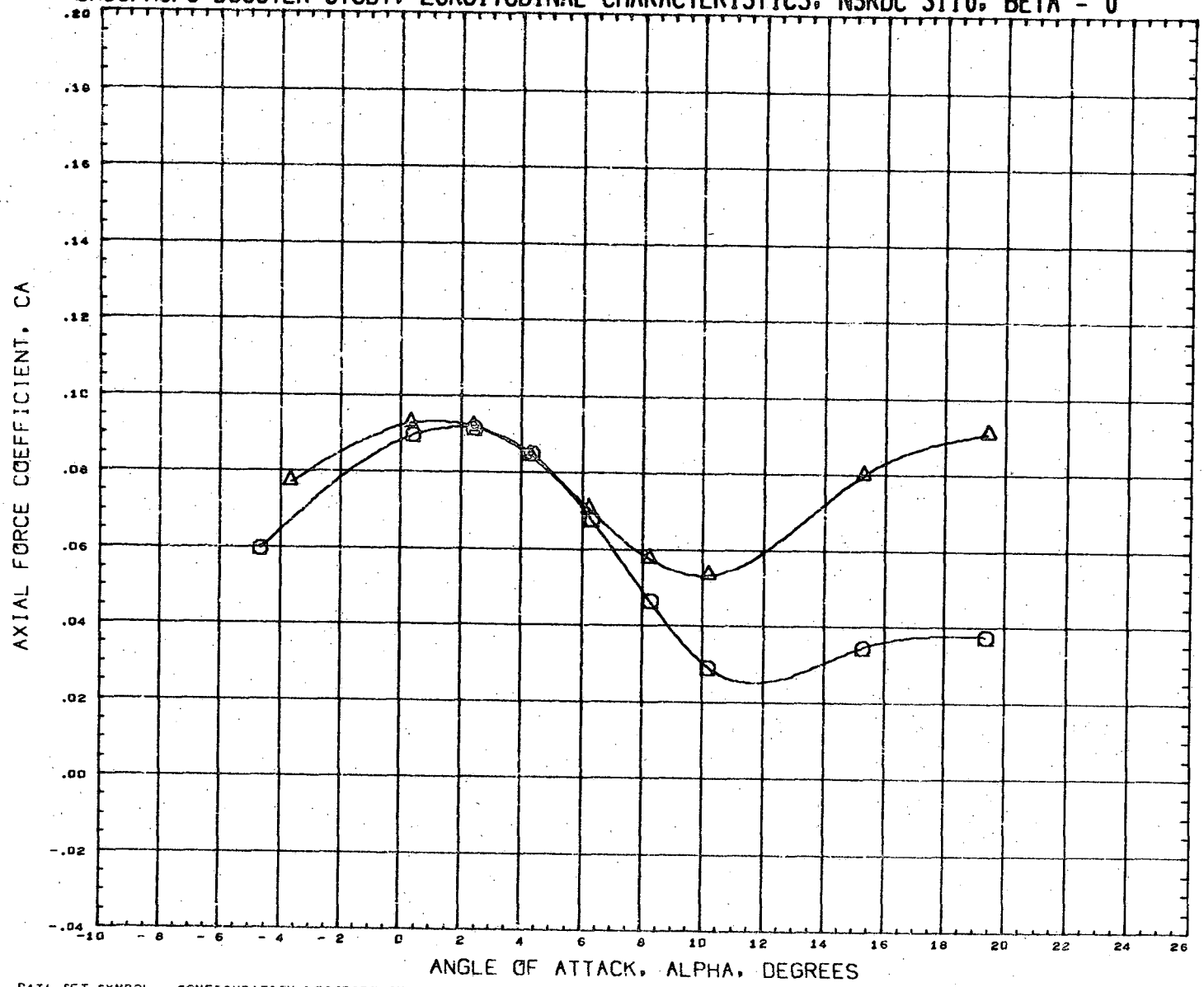



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2077) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 2.000 | 0.000 | 1.000 |
| (RN2109) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 2.000 | 3.000 | 1.000 |

MACH 0.360

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

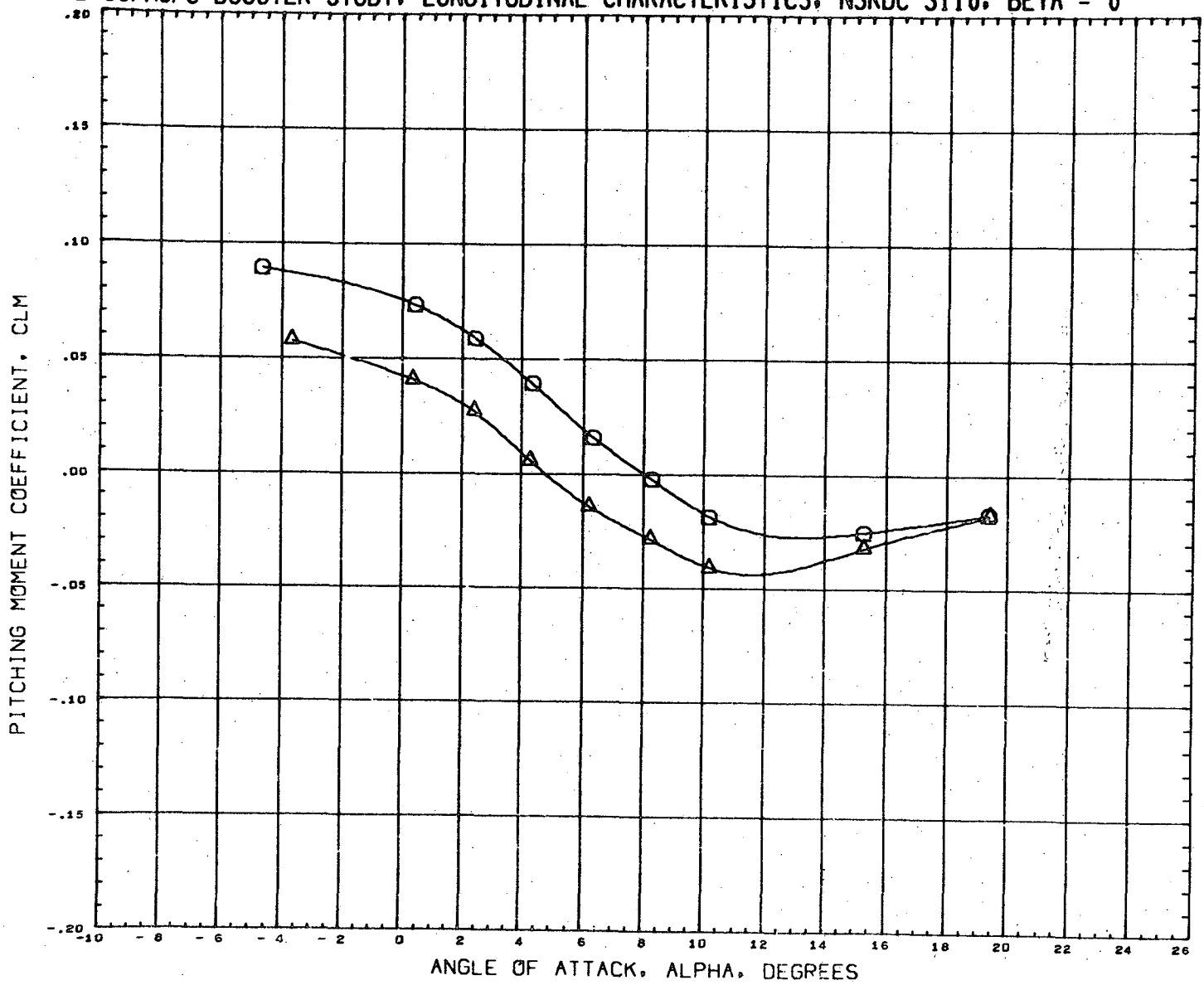



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2077) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 2.000 | 0.000 | 1.000 |
| (RN2109) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 2.000 | 3.000 | 1.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| DREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0



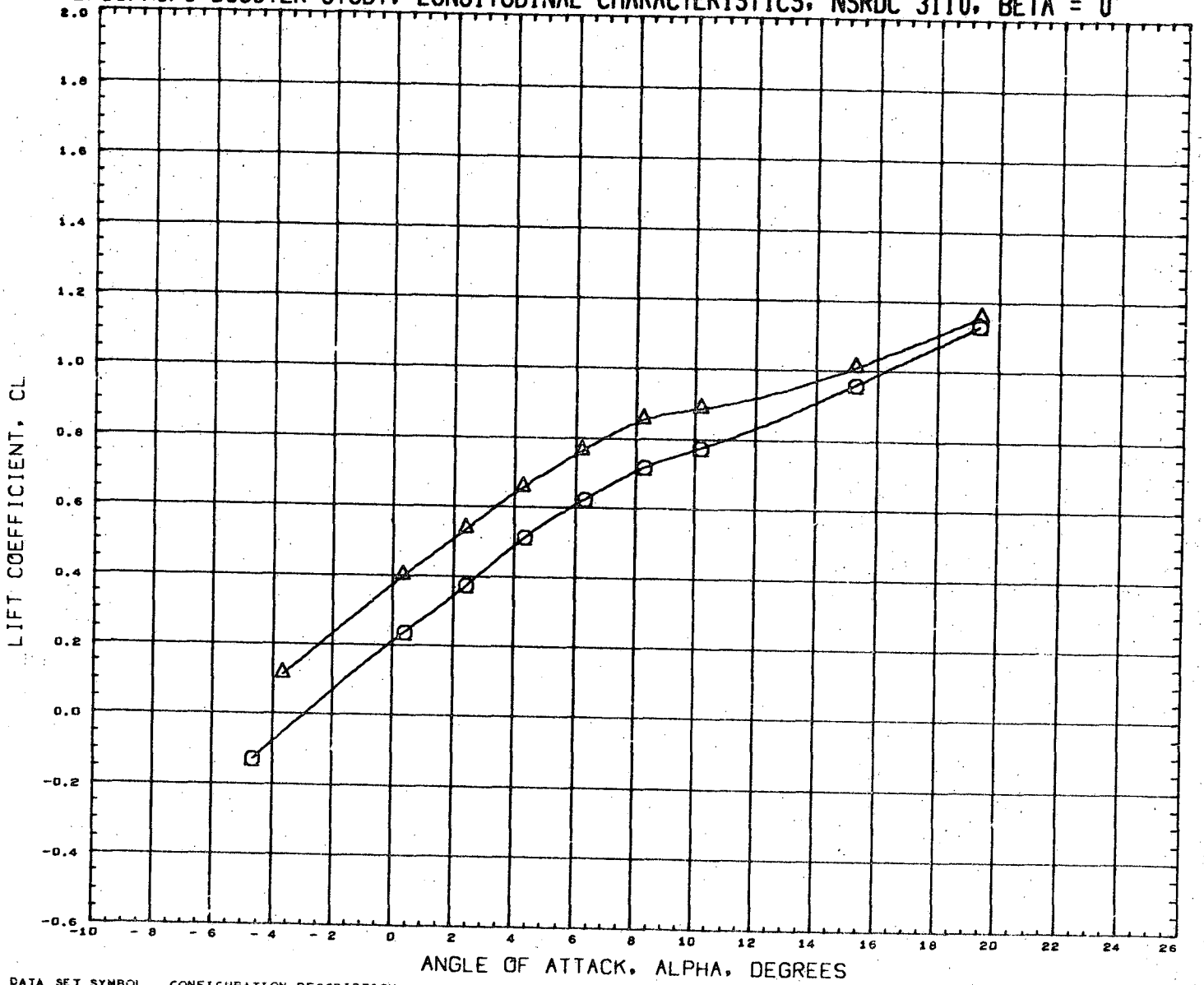

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2077) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 2.000 | 0.000 | 1.000 |
| (RN2109) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 2.000 | 3.000 | 1.000 |

MACH 0.380

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

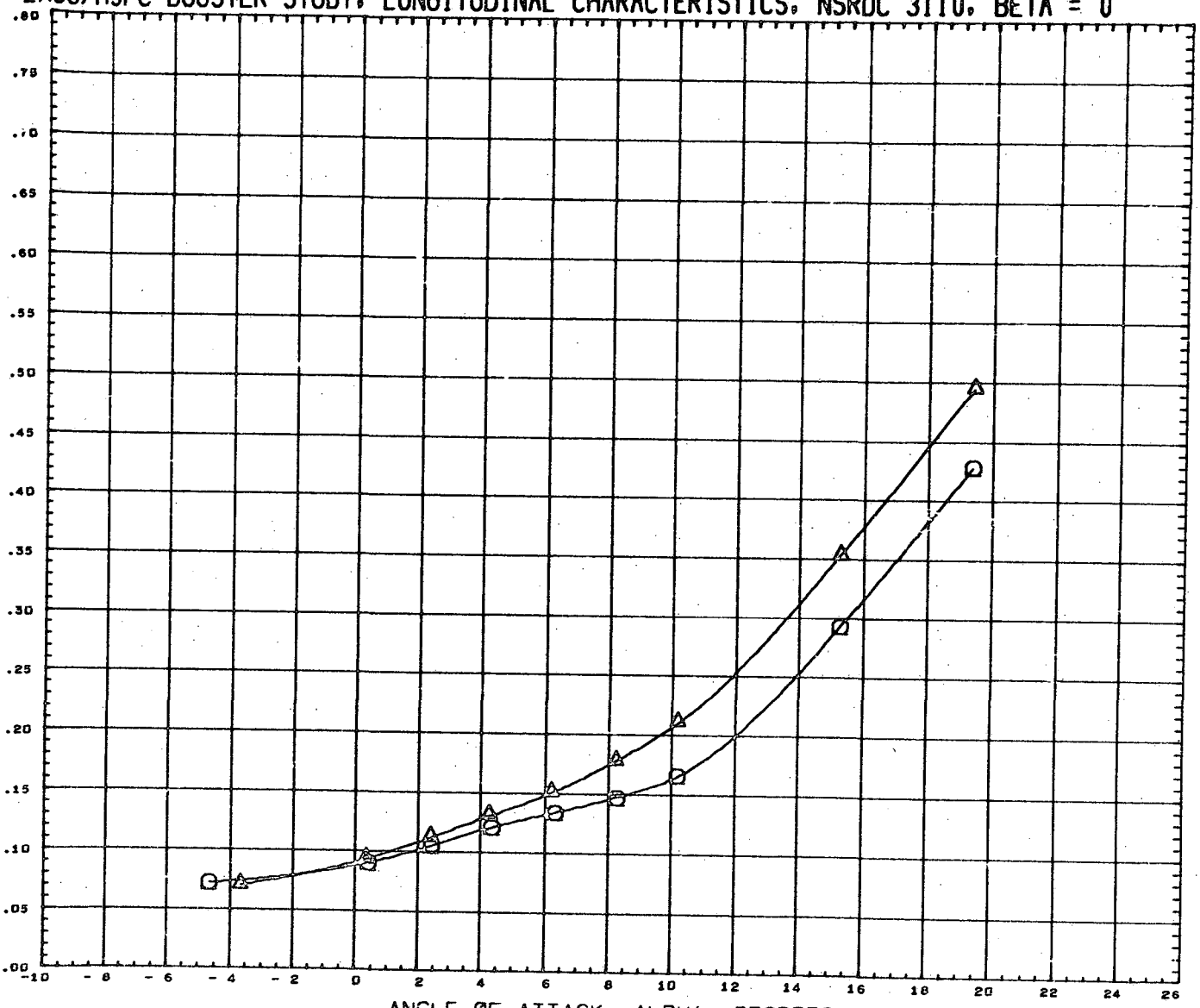



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2077) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 2.000 | 0.000 | 1.000 |
| (RN2109) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 2.000 | 3.000 | 1.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

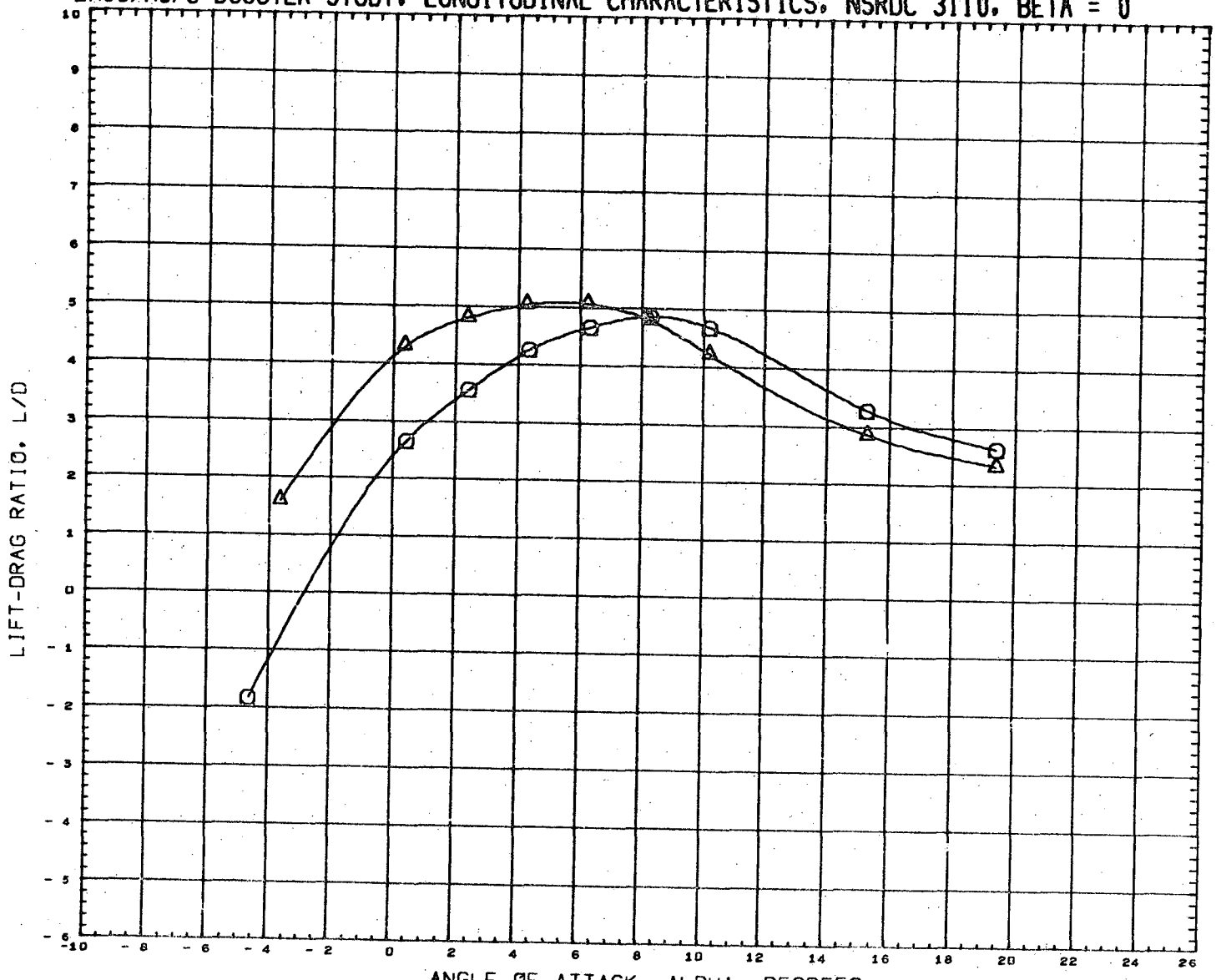



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2077) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 2.000 | 0.000 | 1.000 |
| (RN2109) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 2.000 | 3.000 | 1.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY. LONGITUDINAL CHARACTERISTICS. NSRDC 3110. BETA = 0



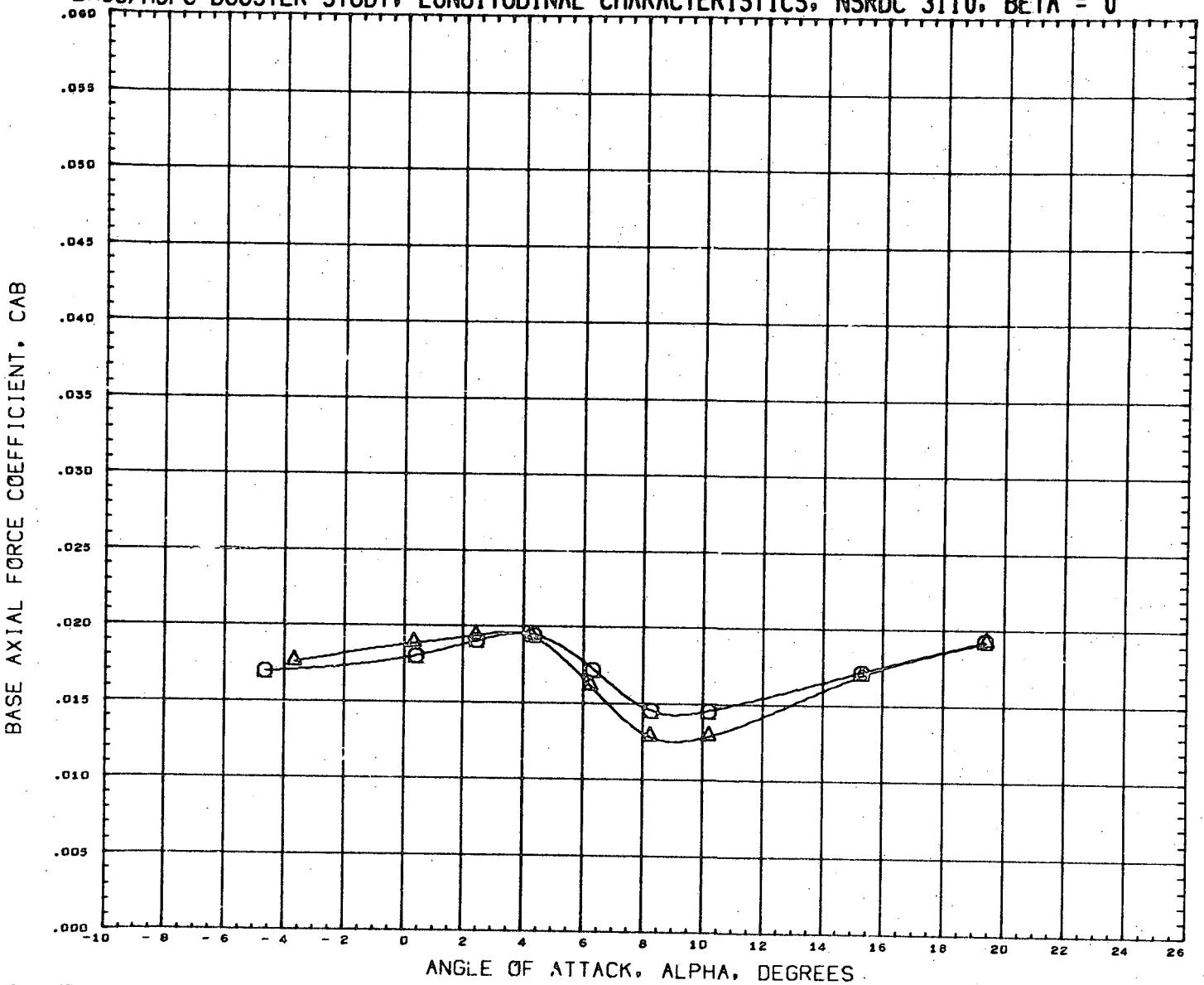

| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION |
|---|---|---|
| (RN2077) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 |
| (RN2109) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 |

| INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|
| 15.000 | 2.000 | 0.000 | 1.000 |
| 15.000 | 2.000 | 3.000 | 1.000 |

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

MACH 0.380

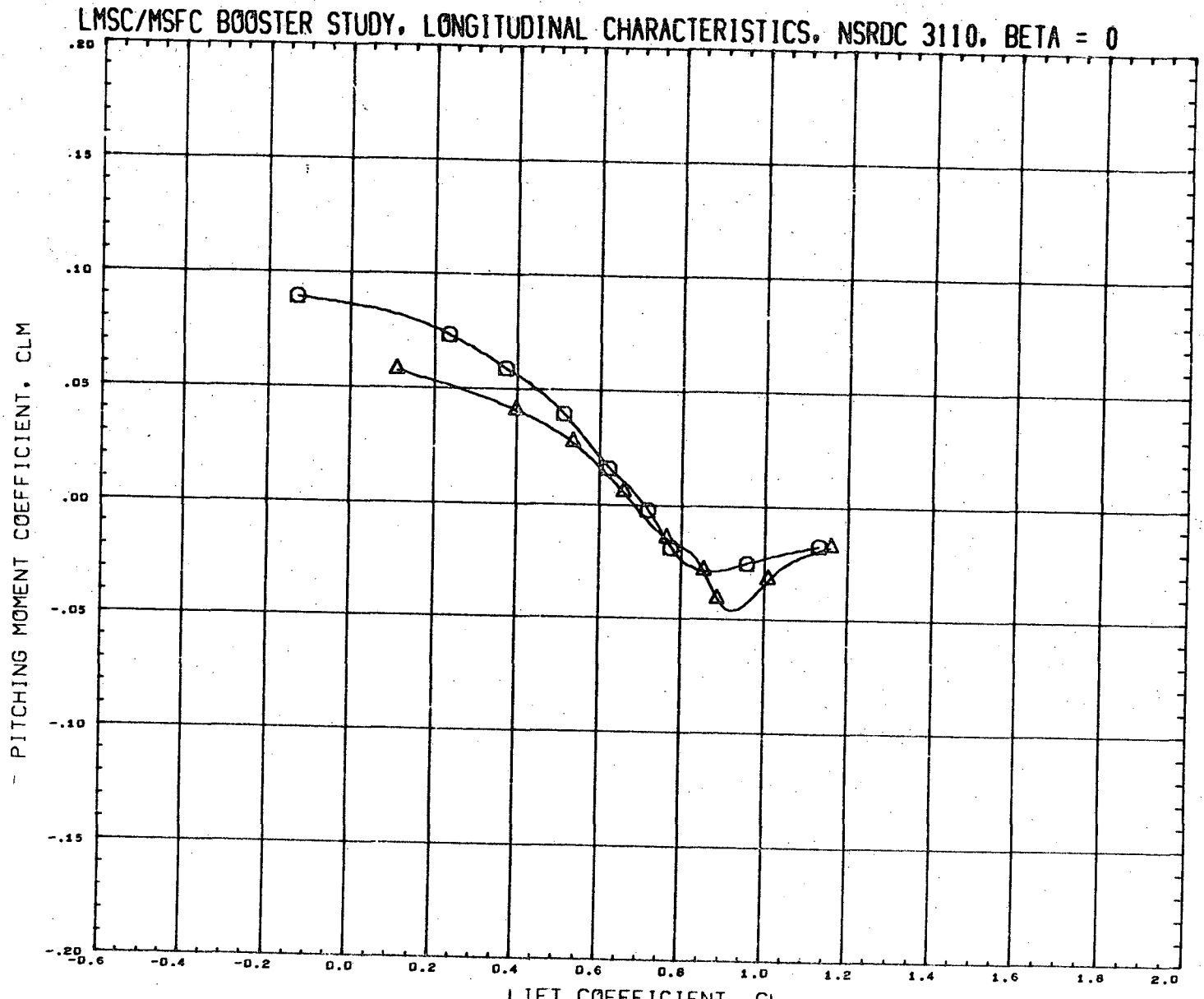
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2077) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 2.000 | 0.000 | 1.000 |
| (RN2109) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 2.000 | 3.000 | 1.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |



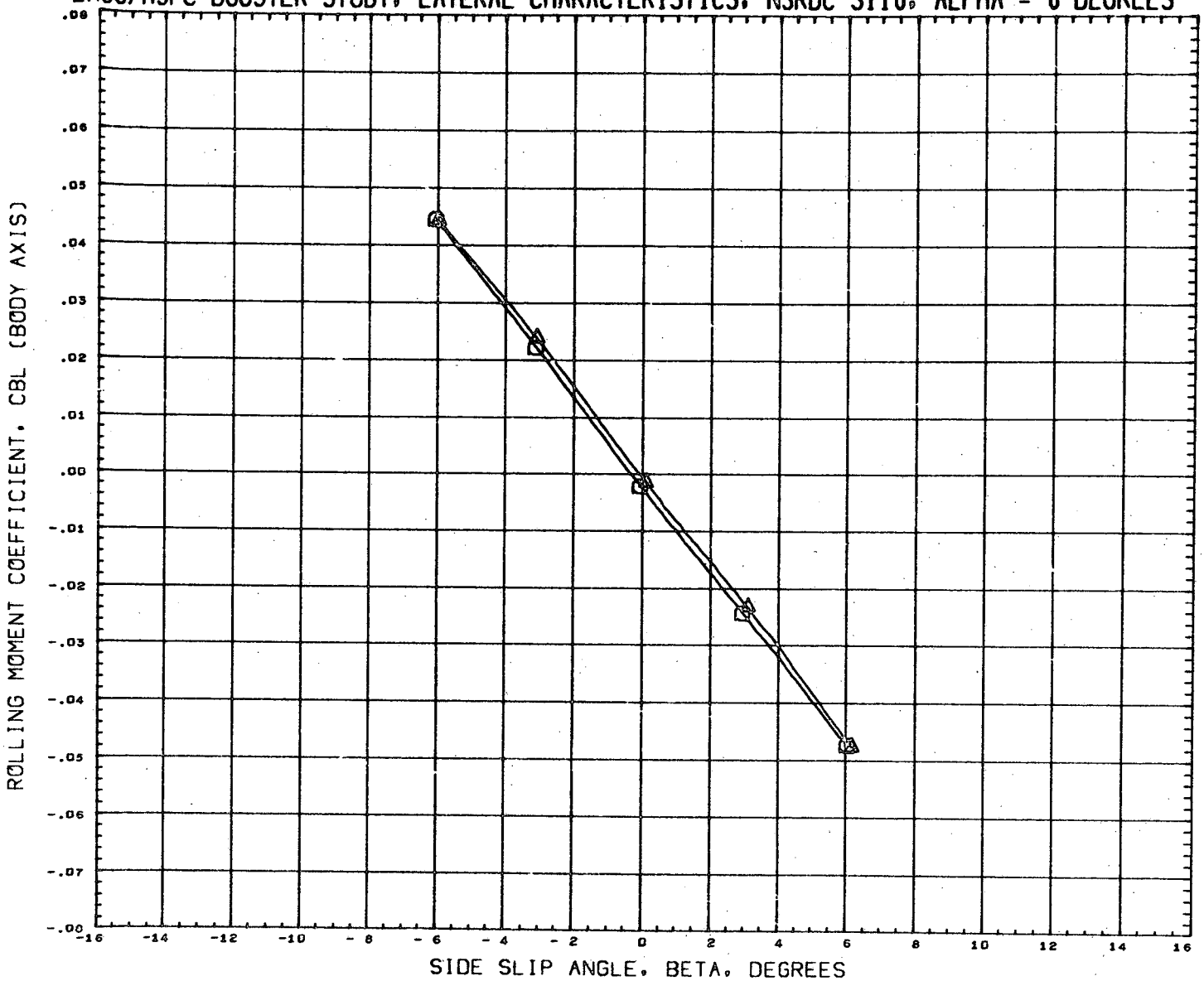

| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION |
|---|---|---|
| (RN2077) | O | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 |
| (RN2109) | Δ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 |

| INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|
| 15.000 | 2.000 | 0.000 | 1.000 |
| 15.000 | 2.000 | 3.000 | 1.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

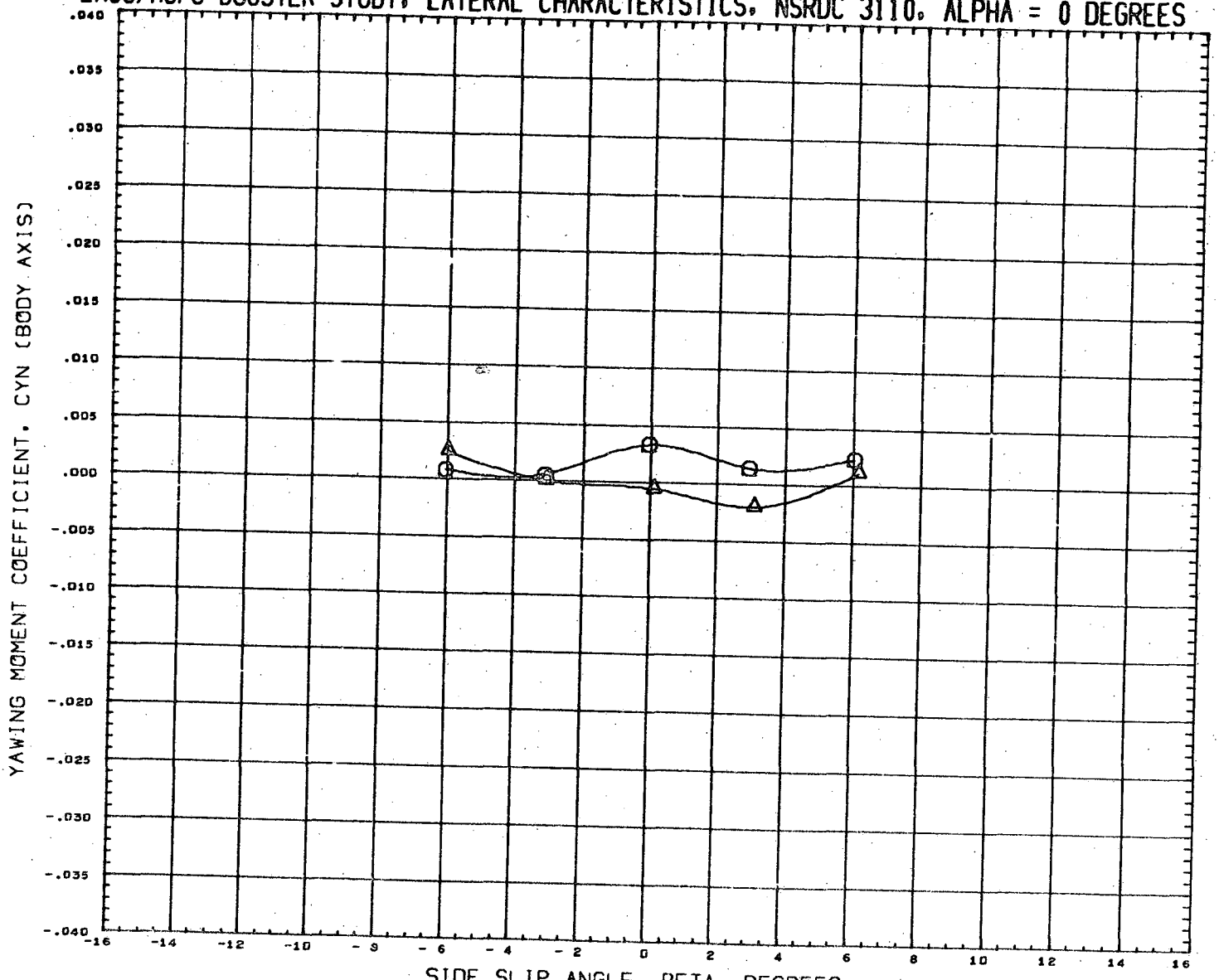



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2078) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 2.000 | 0.000 | 1.000 |
| (RN2110) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 2.000 | 3.000 | 1.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

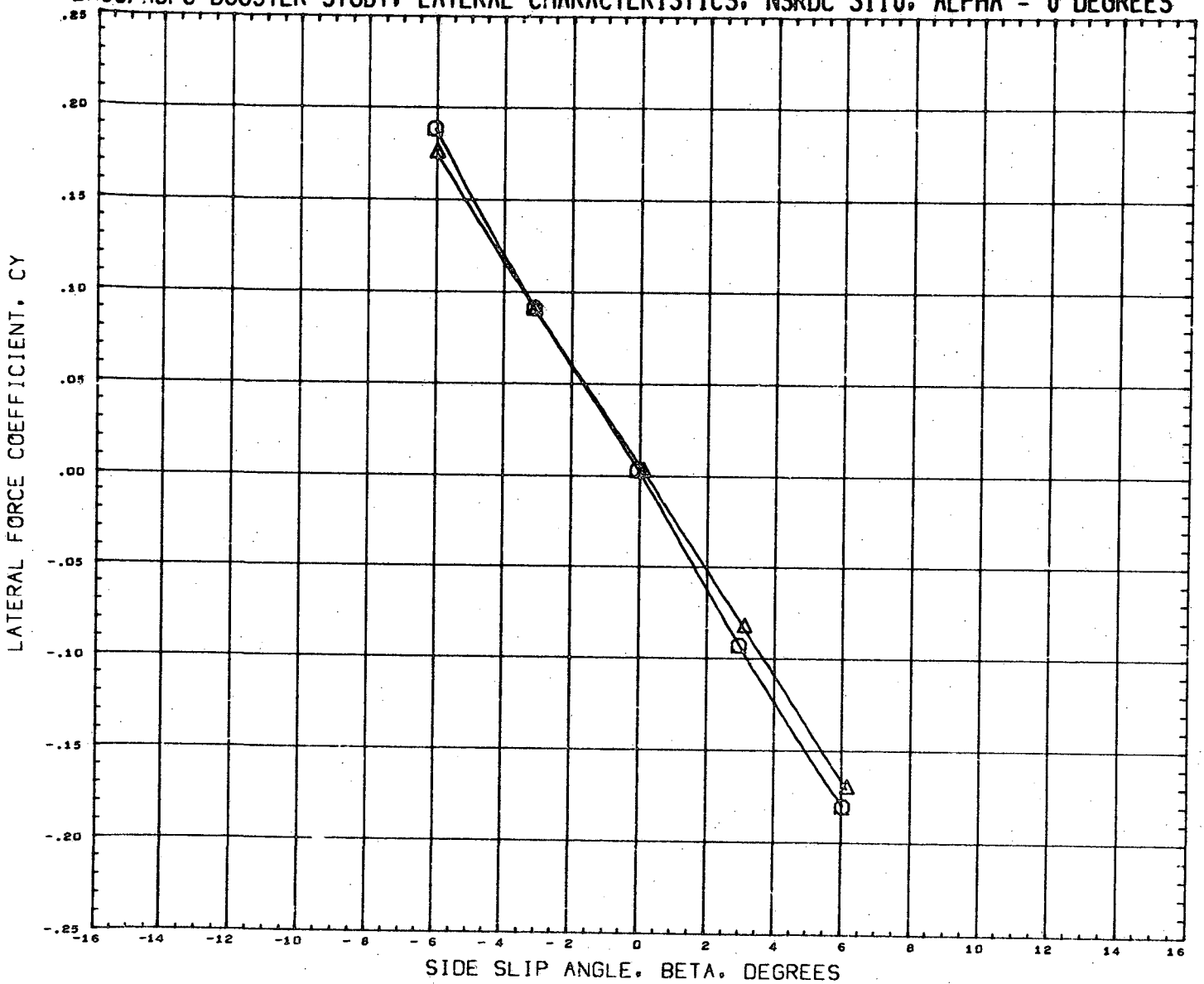



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2078) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 2.000 | 0.000 | 1.000 |
| (RN2110) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 2.000 | 3.000 | 1.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

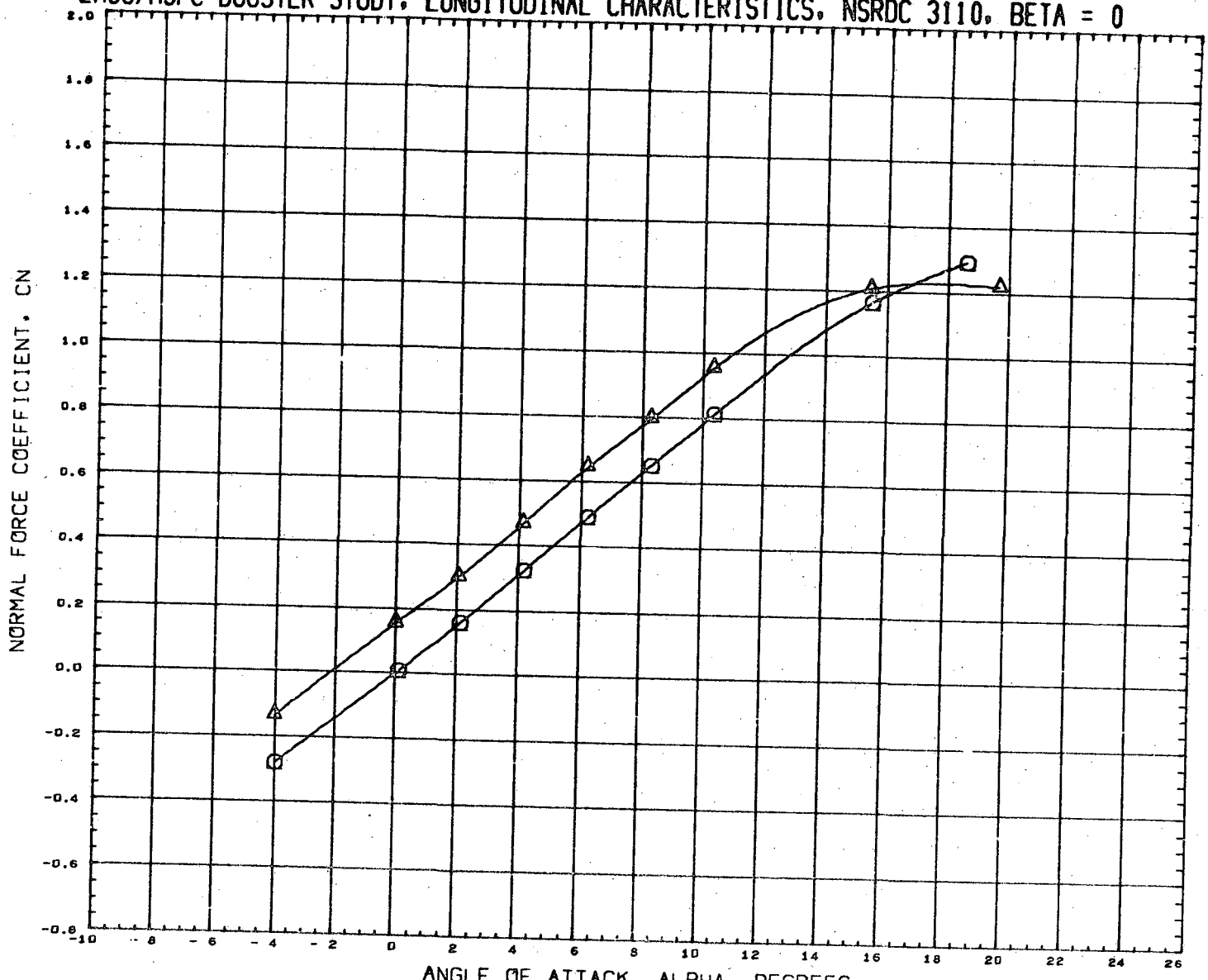



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2078) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 2.000 | 0.000 | 1.000 |
| (RN2110) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 2.000 | 3.000 | 1.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | CONFIGURATION DESCRIPTION |
|---|---|
| (RN2081) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 |
| (RN2113) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 |

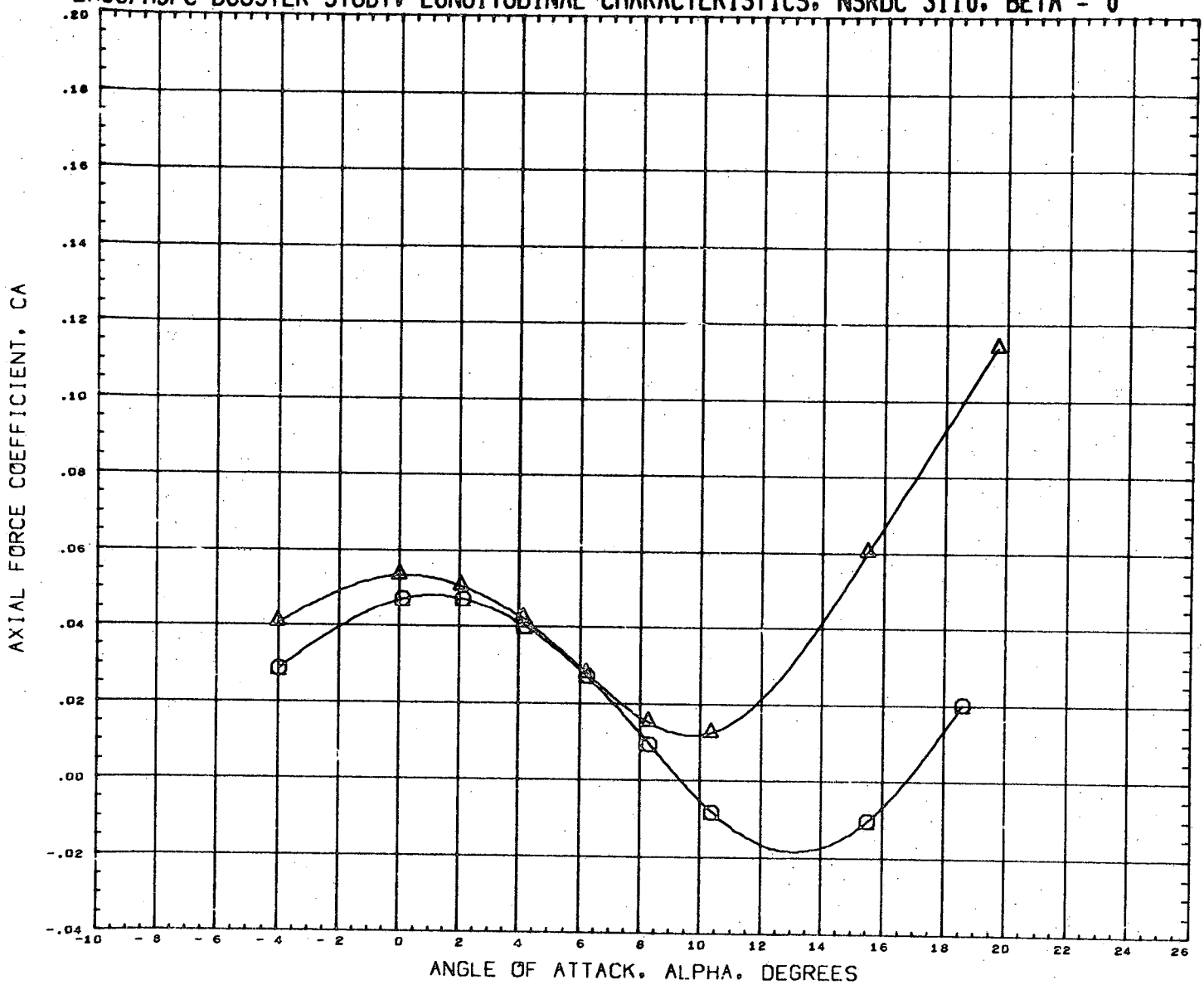
| INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|
| 3.000 | 1.000 | 0.000 | 2.000 |
| 3.000 | 1.000 | 3.000 | 2.000 |

MACH 0.380

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY. LONGITUDINAL CHARACTERISTICS. NSRDC 3110. BETA = 0

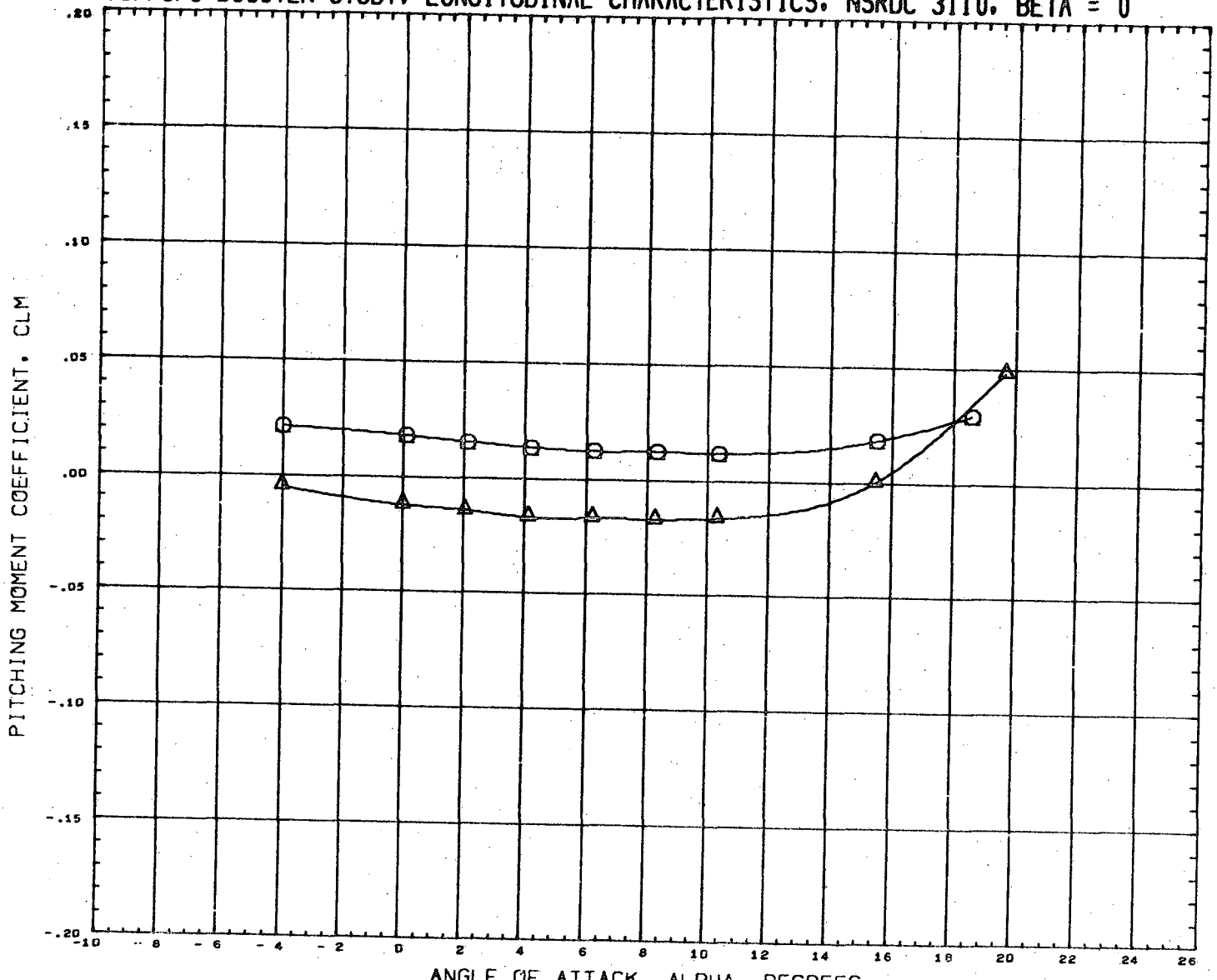



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDFOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2081) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 1.000 | 0.000 | 2.000 |
| (RN2113) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 1.000 | 3.000 | 2.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0



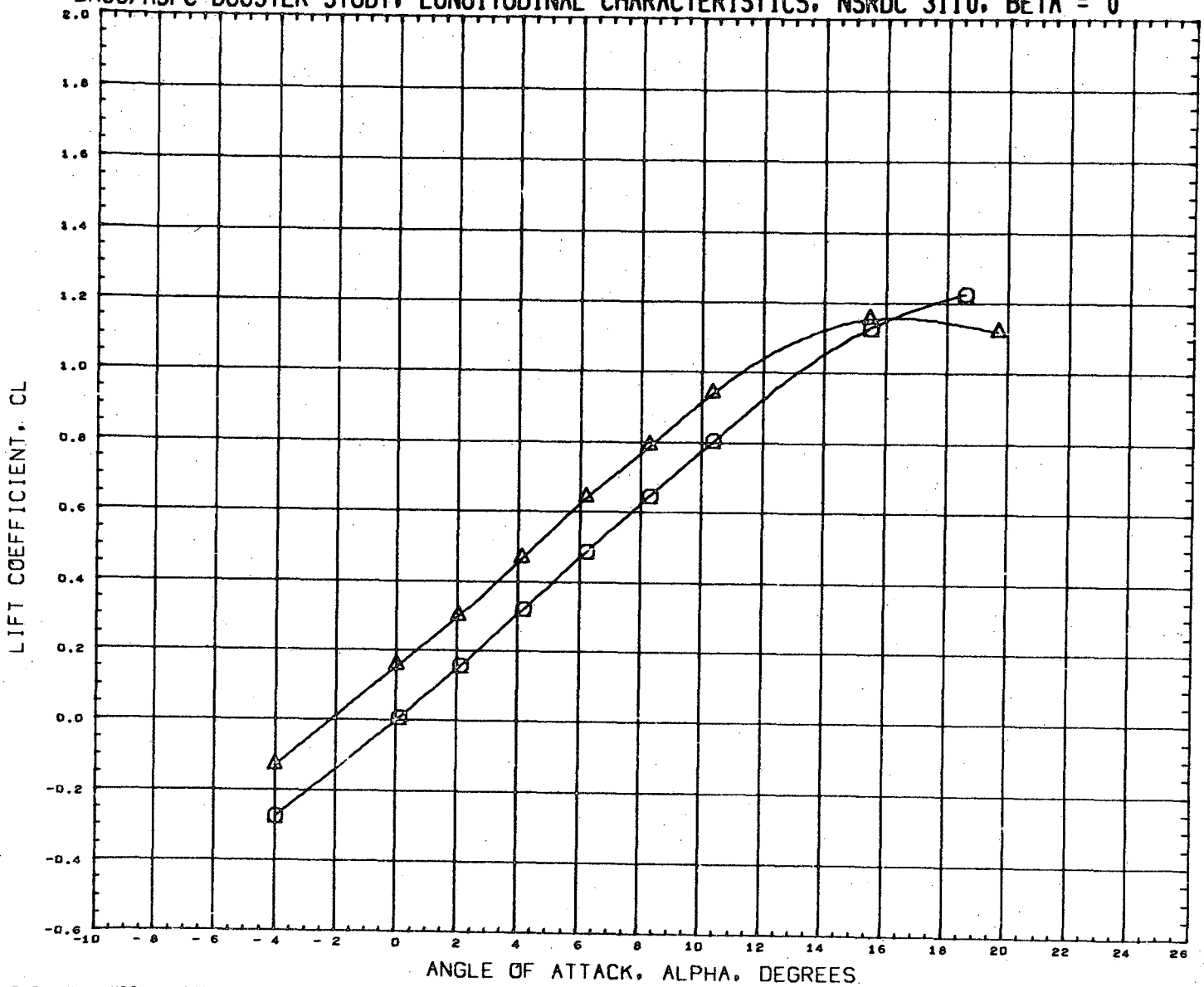

| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION |
|---|---|---|
| (RN2081) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 |
| (RN2113) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 |

| INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|
| 3.000 | 1.000 | 0.000 | 2.000 |
| 3.000 | 1.000 | 3.000 | 2.000 |

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

MACH 0.380

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

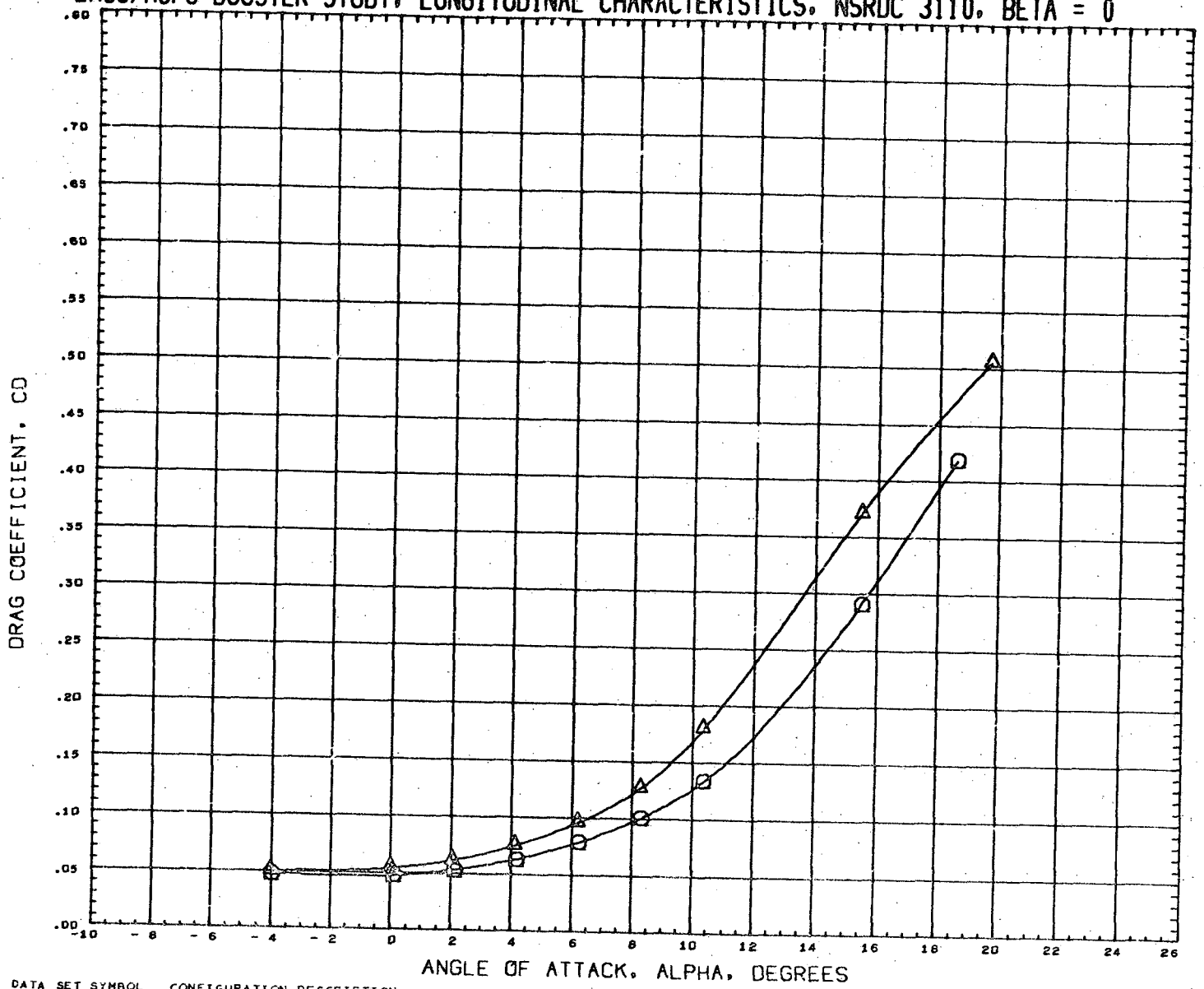



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2081) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 1.000 | 0.000 | 2.000 |
| (RN2113) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 1.000 | 3.000 | 2.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0



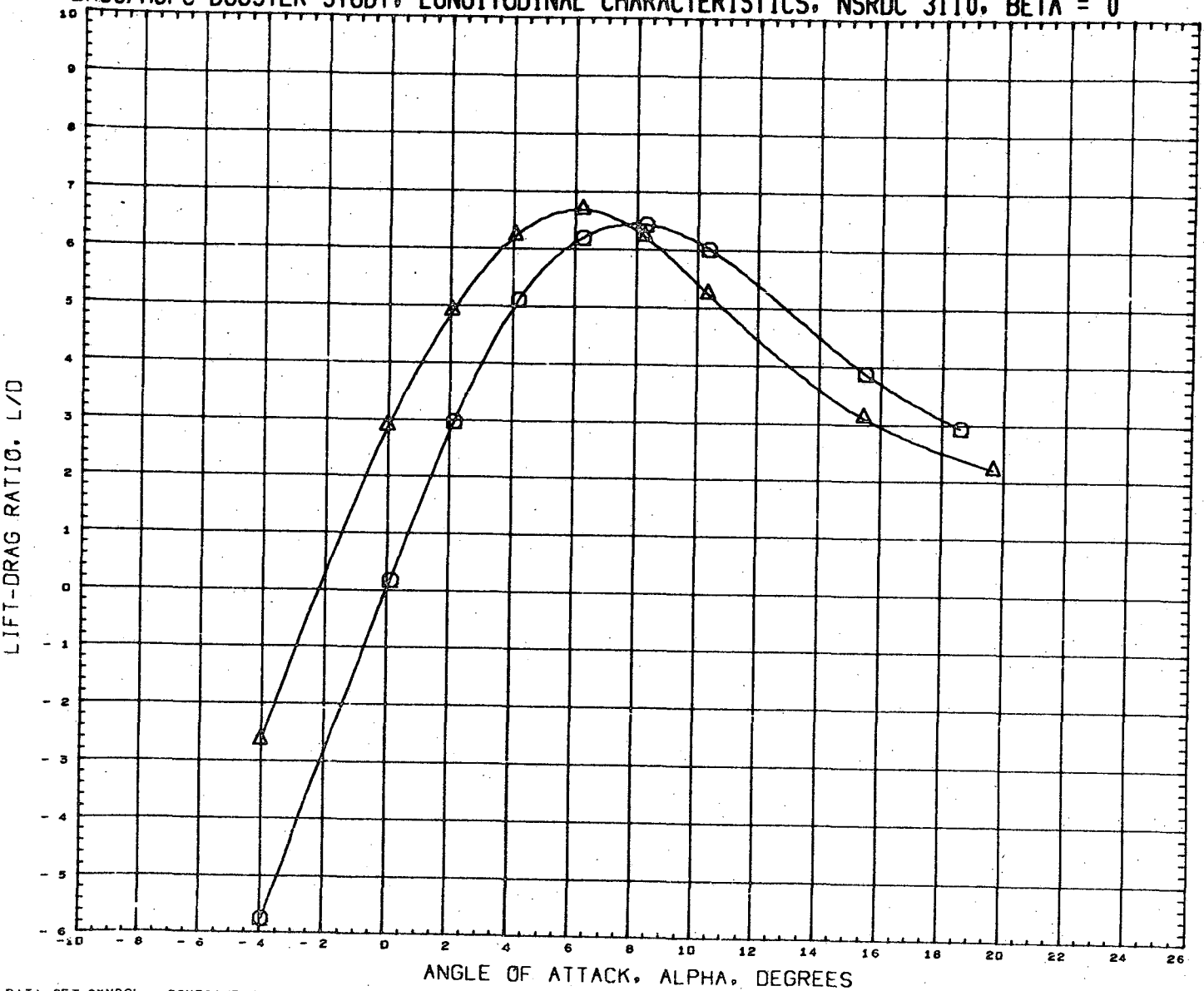

| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION |
|---|---|---|
| (RN2081) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 |
| (RN2113) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 |

| INCIDC | CNDFOS | INCIDW | WNGFOS |
|---|---|---|---|
| 3.000 | 1.000 | 0.000 | 2.000 |
| 3.000 | 1.000 | 3.000 | 2.000 |

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

MACH 0.380

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION |
|---|---|---|
| (RN2081) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 |
| (RN2113) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 |

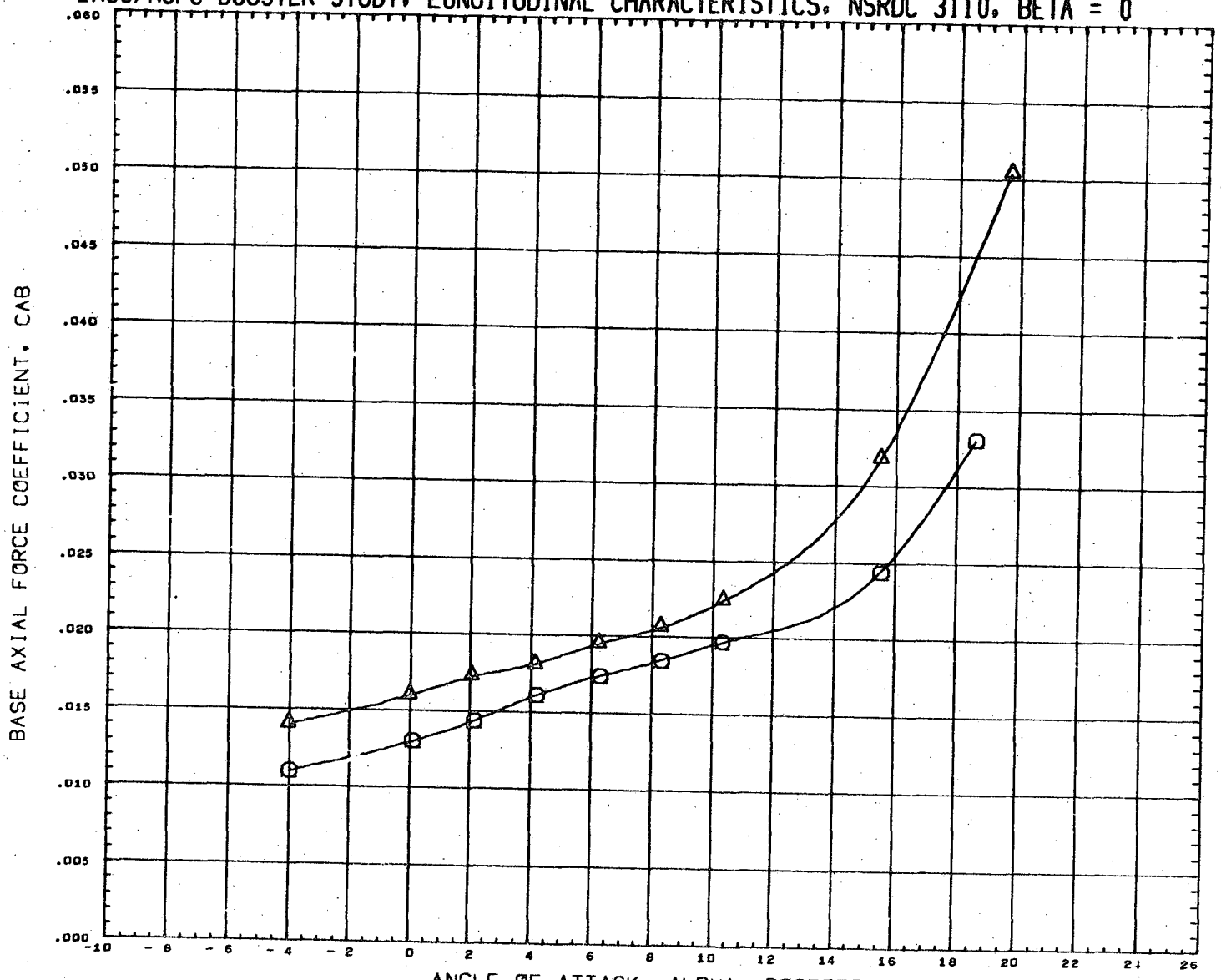
| INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|
| 3.000 | 1.000 | 0.000 | 2.000 |
| 3.000 | 1.000 | 3.000 | 2.000 |

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

MACH 0.380

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION |
|---|---|---|
| (RN2081) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 |
| (RN2113) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 |

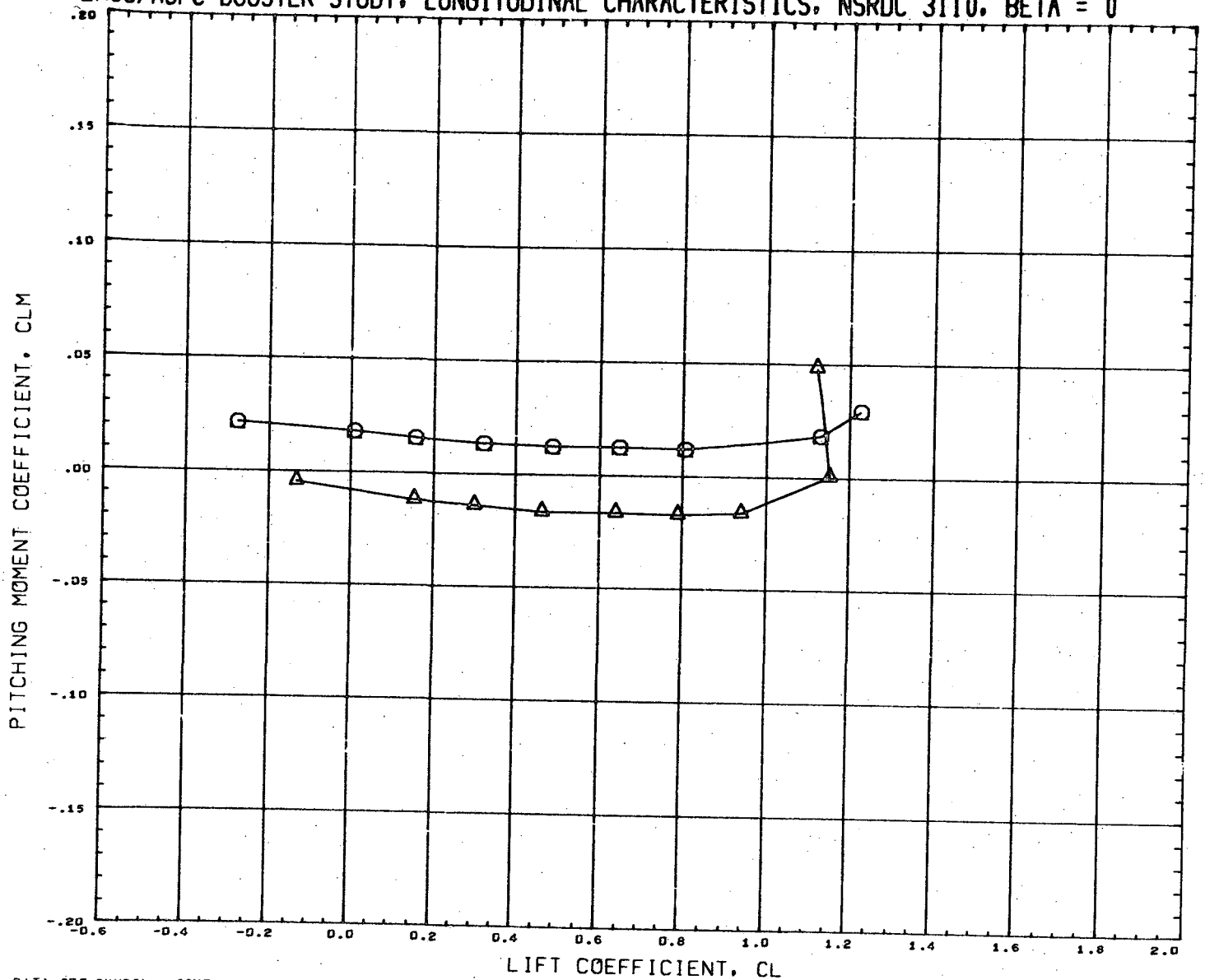
| INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|
| 3.000 | 1.000 | 0.000 | 2.000 |
| 3.000 | 1.000 | 3.000 | 2.000 |

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

MACH 0.390

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

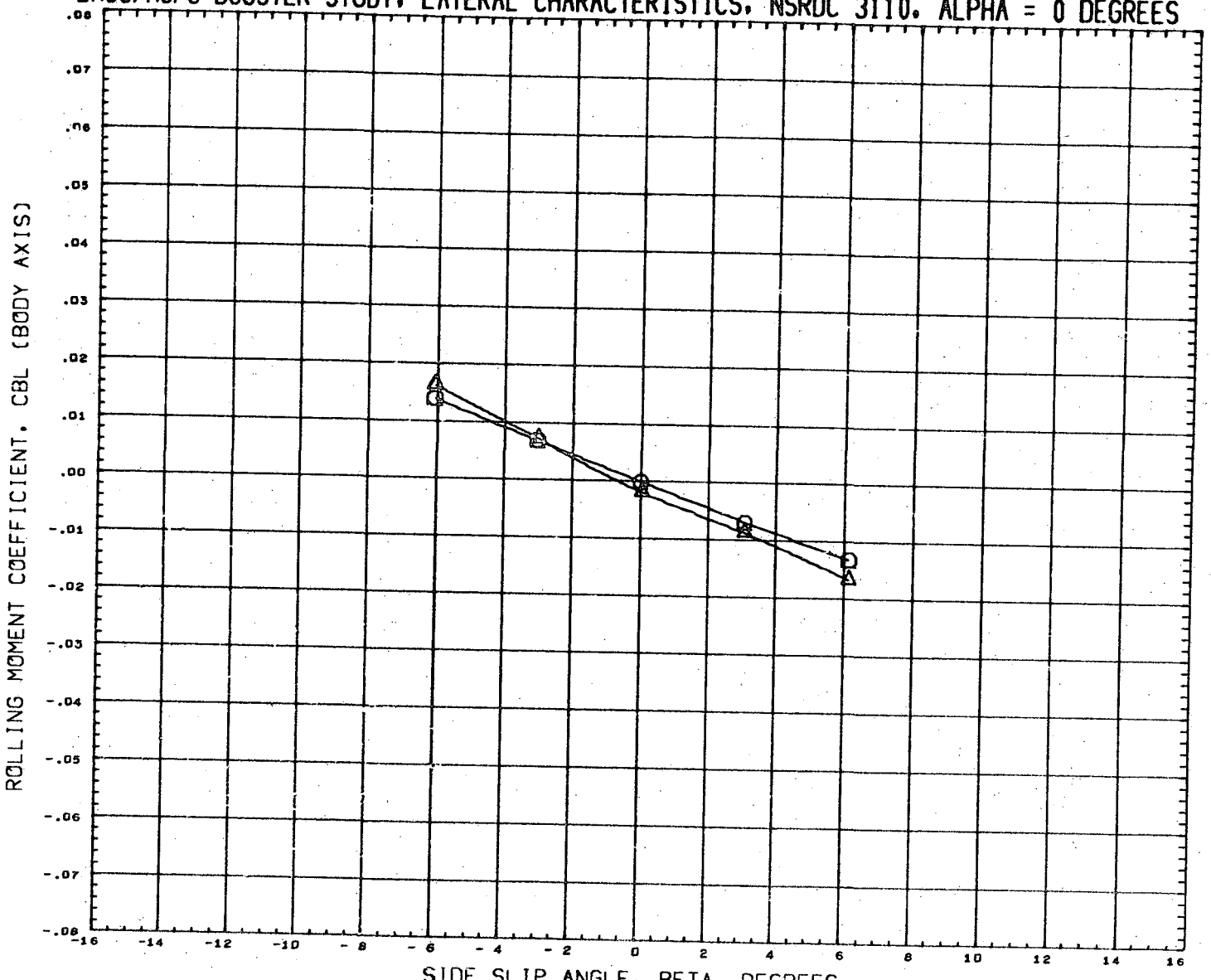



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2081) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 1.000 | 0.000 | 2.000 |
| (RN2113) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 1.000 | 3.000 | 2.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

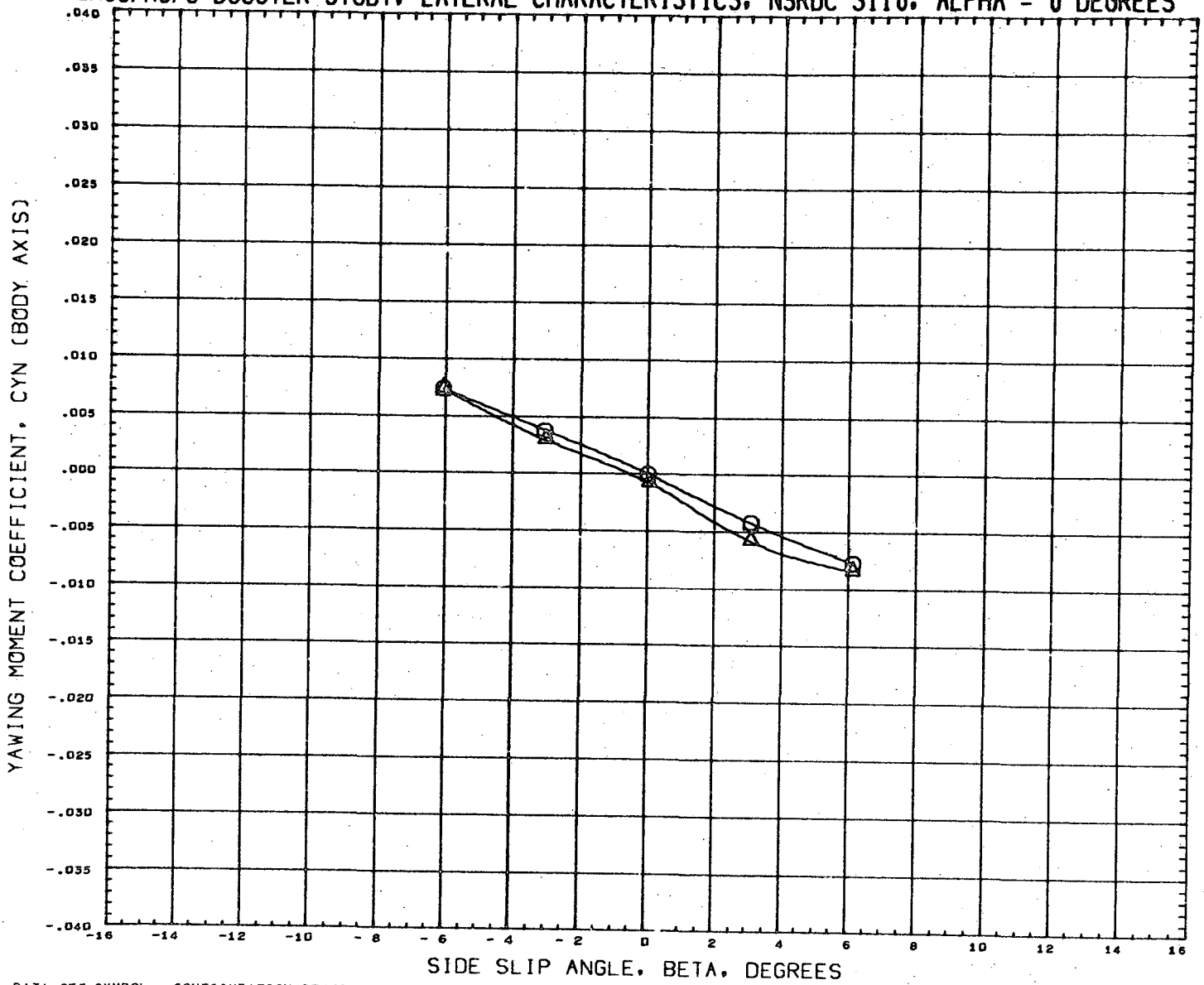



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2082) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 1.000 | 0.000 | 2.000 |
| (RN2114) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 1.000 | 3.000 | 2.000 |

MACH 0.360

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCENT |

# LMSC/MSFC BOOSTER STUDY. LATERAL CHARACTERISTICS. NSRDC 3110. ALPHA = 0 DEGREES

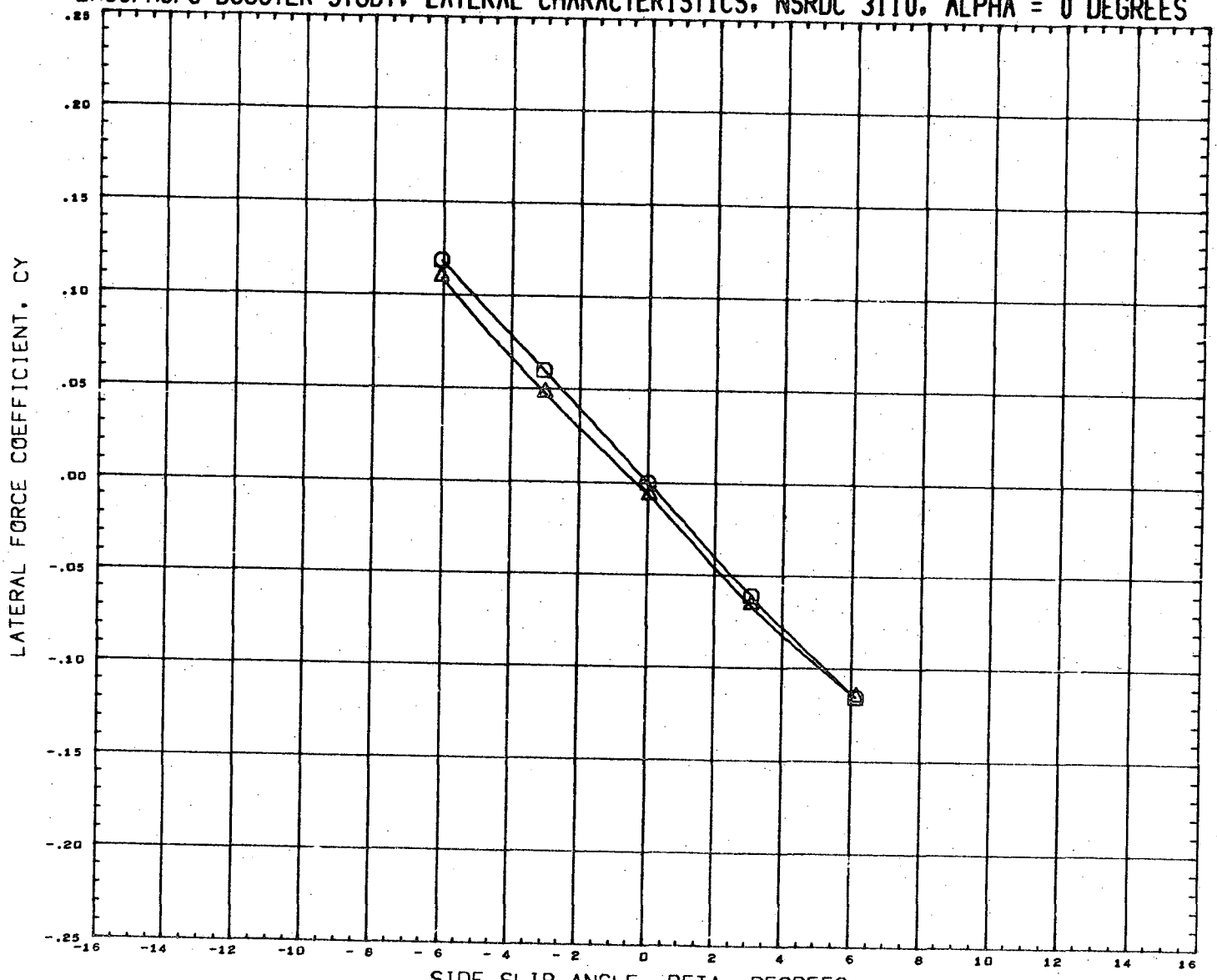



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2082) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 1.000 | 0.000 | 2.000 |
| (RN2114) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 2.000 | 1.000 | 3.000 | 2.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

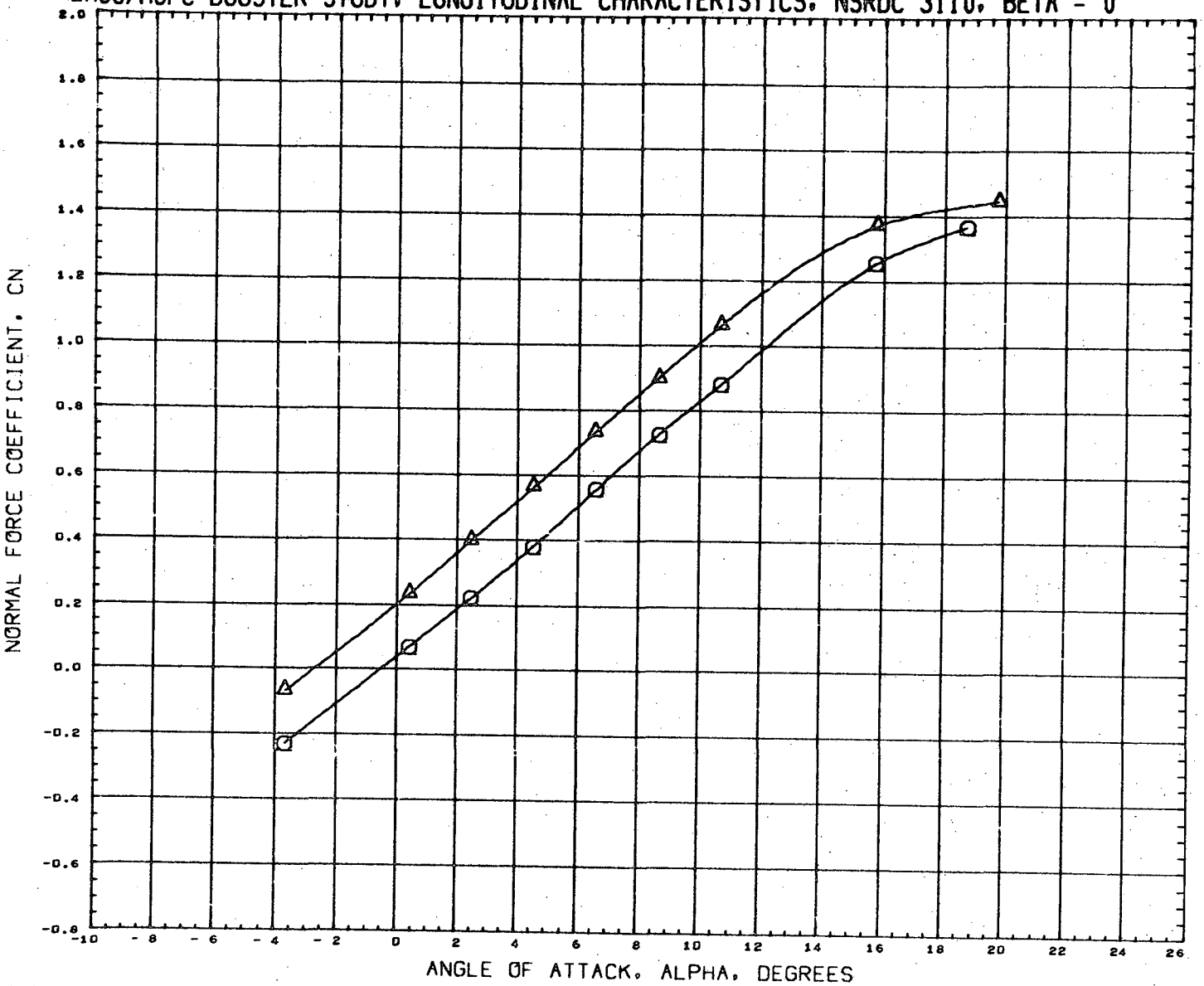



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2082) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 1.000 | 0.000 | 2.000 |
| (RN2114) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 1.000 | 3.000 | 2.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

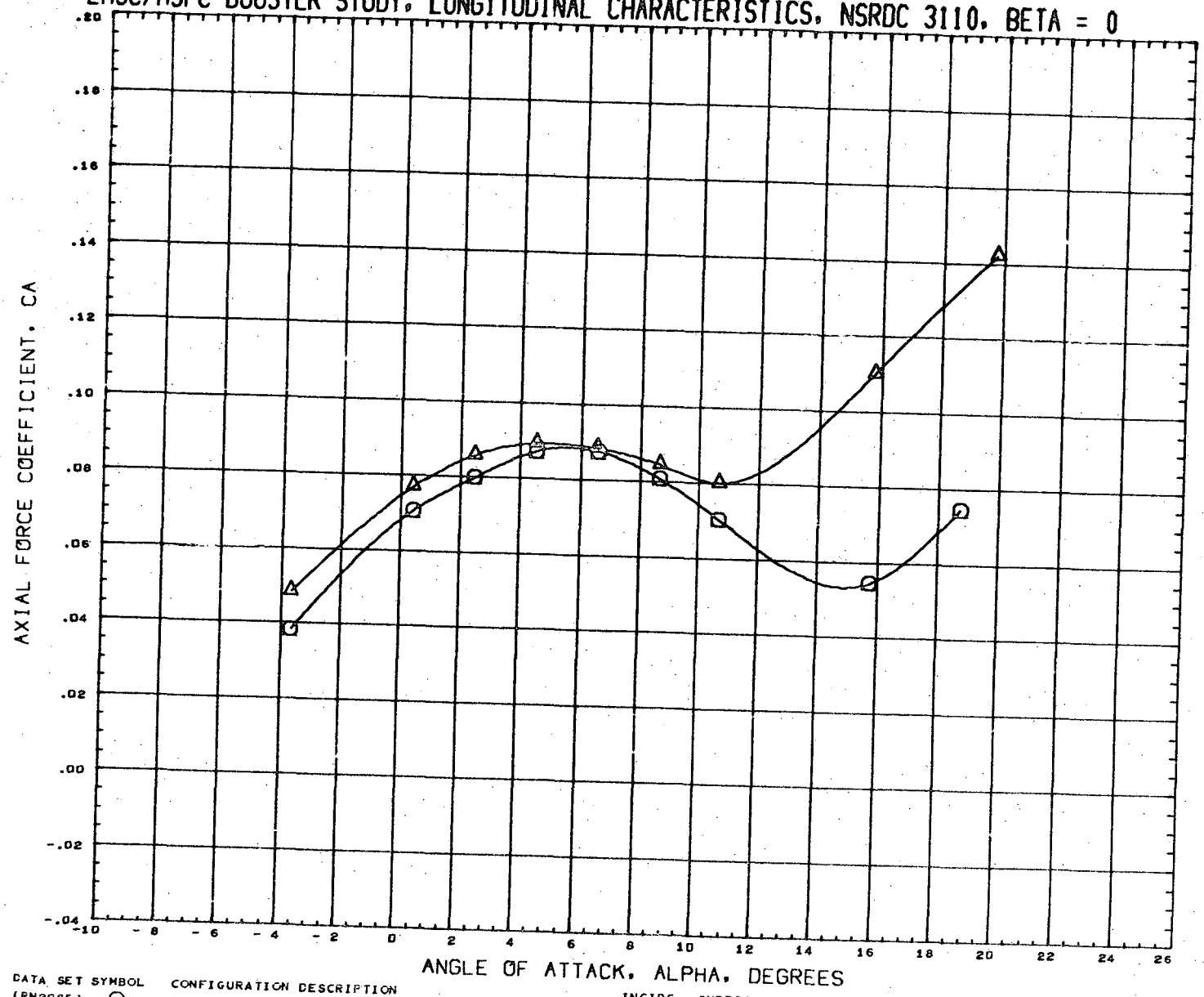
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2085) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 1.000 | 0.000 | 2.000 |
| (RN2117) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 1.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

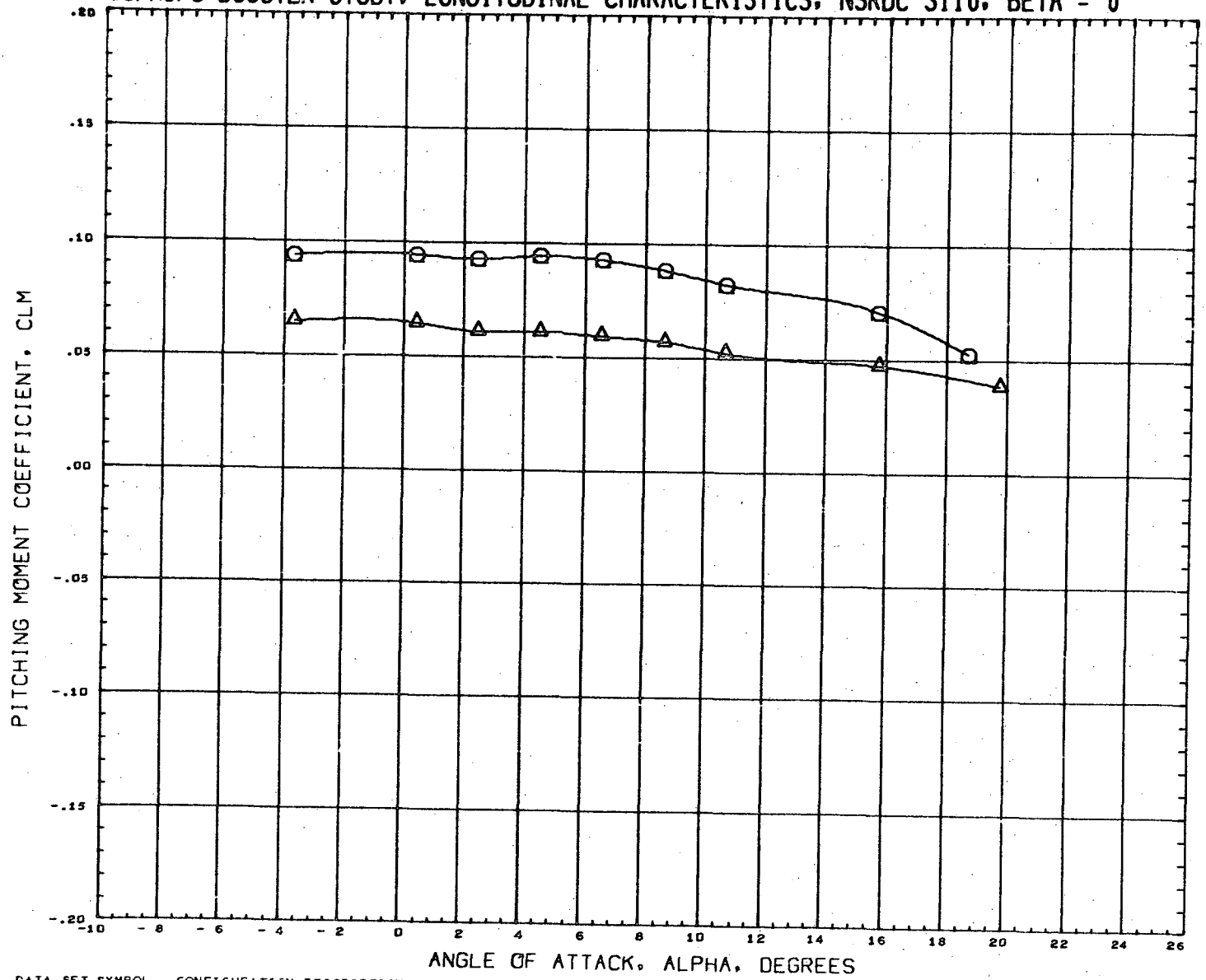



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2085) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 1.000 | 0.000 | 2.000 |
| (RN2117) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 1.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY. LONGITUDINAL CHARACTERISTICS. NSRDC 3110. BETA = 0

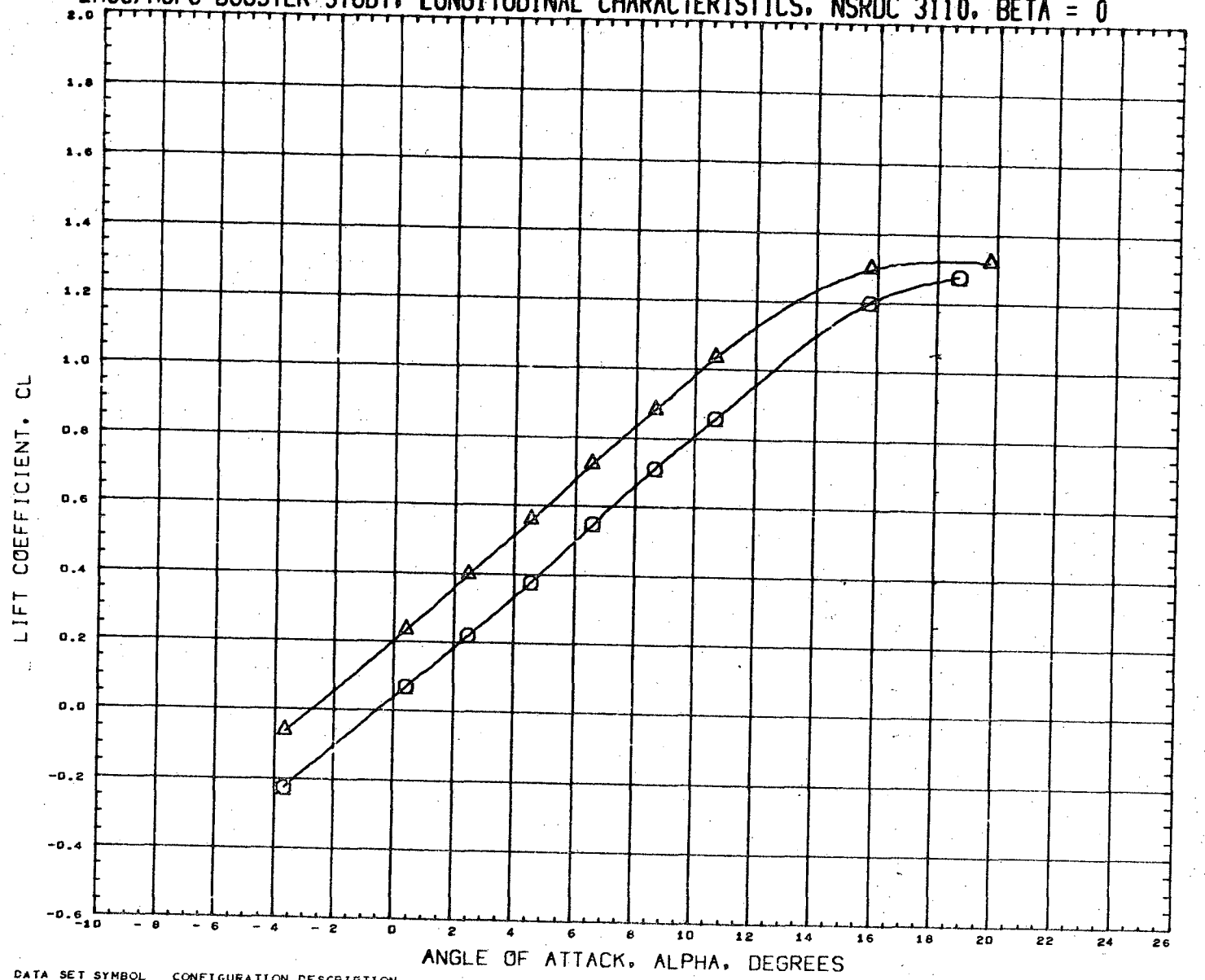



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2085) ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 1.000 | 0.000 | 2.000 |
| (RN2117) △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 1.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

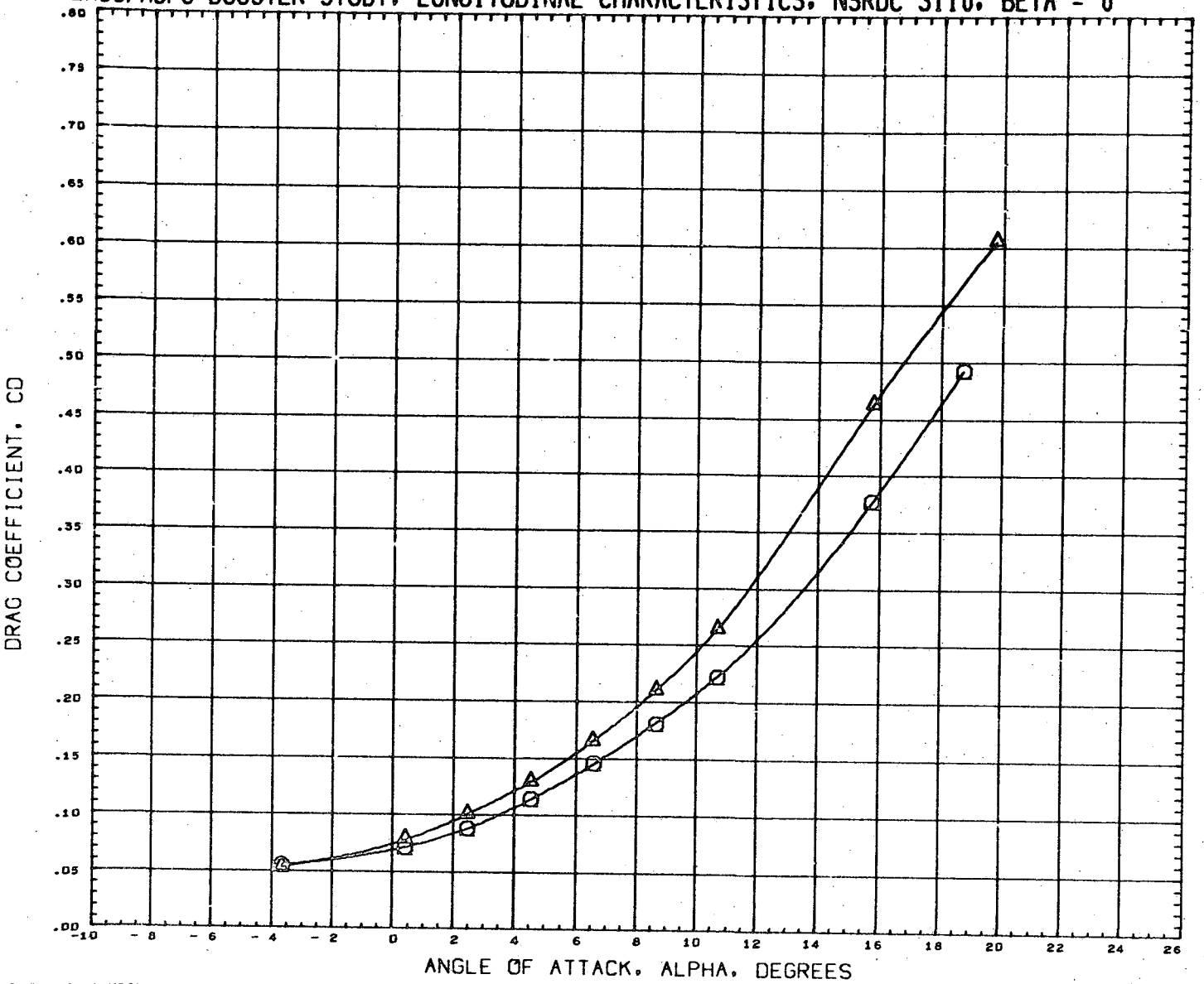



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2085) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 1.000 | 0.000 | 2.000 |
| (RN2117) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 1.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

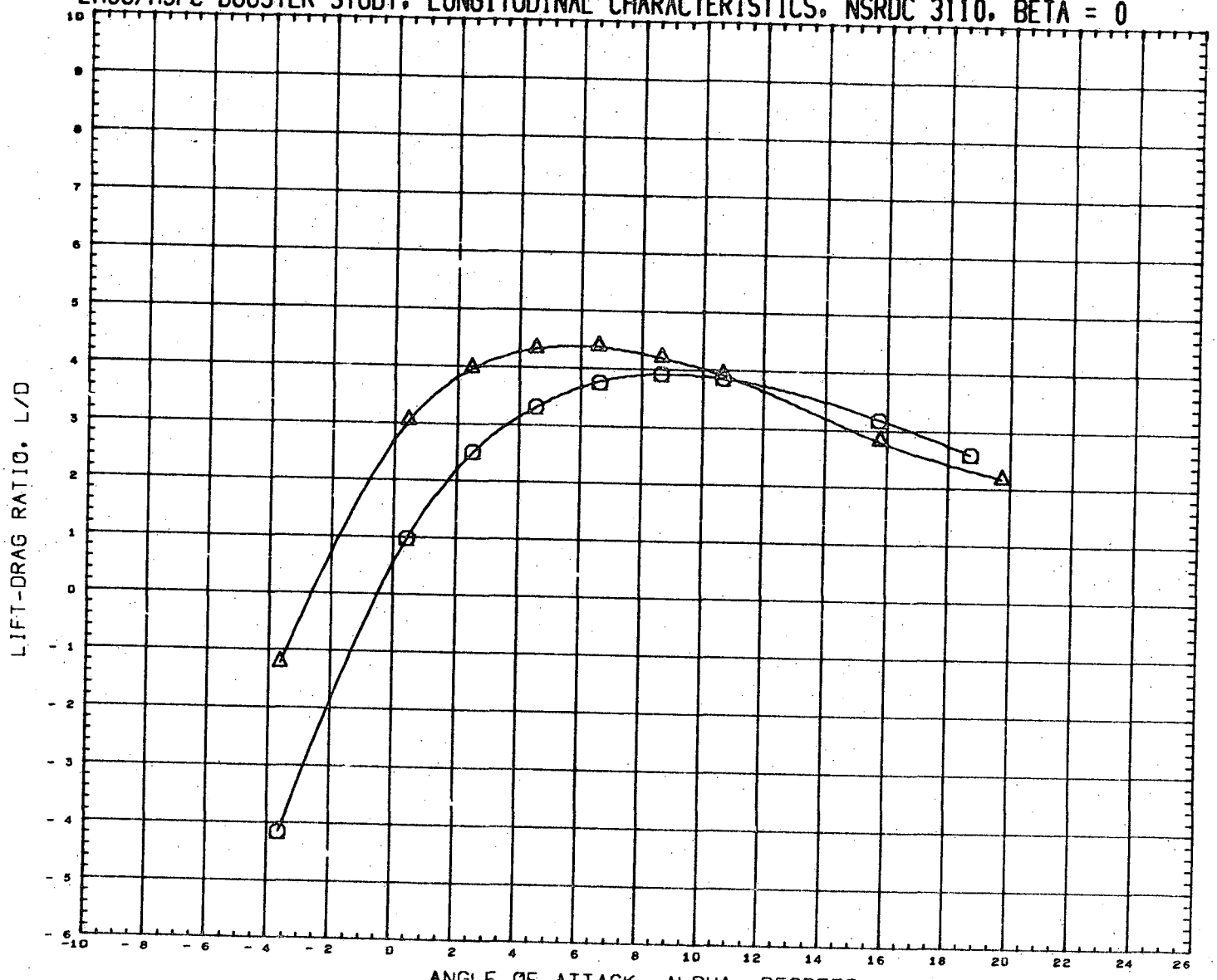



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2085) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 1.000 | 0.000 | 2.000 |
| (RN2117) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 1.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

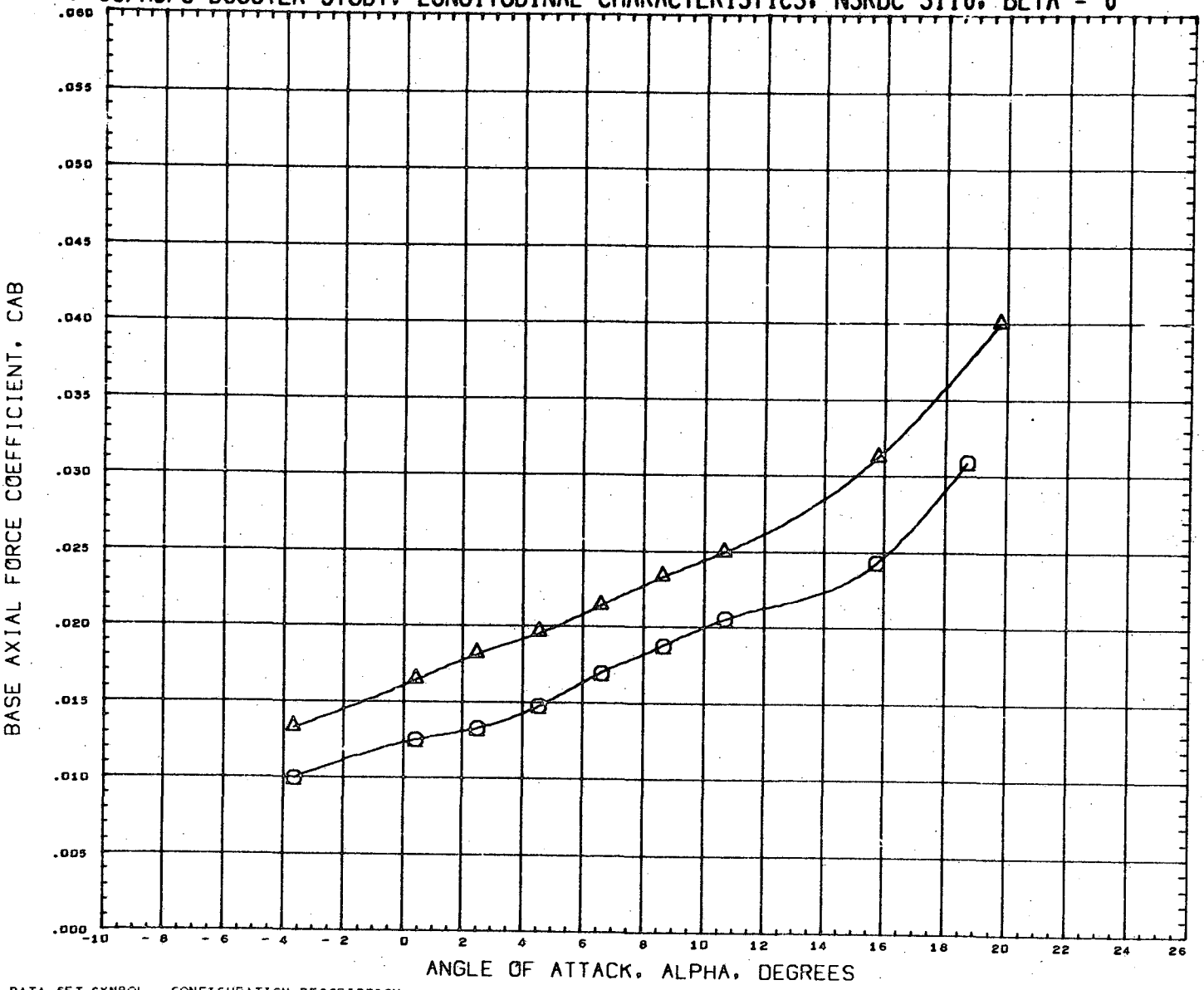



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2085) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 1.000 | 0.000 | 2.000 |
| (RN2117) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 1.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

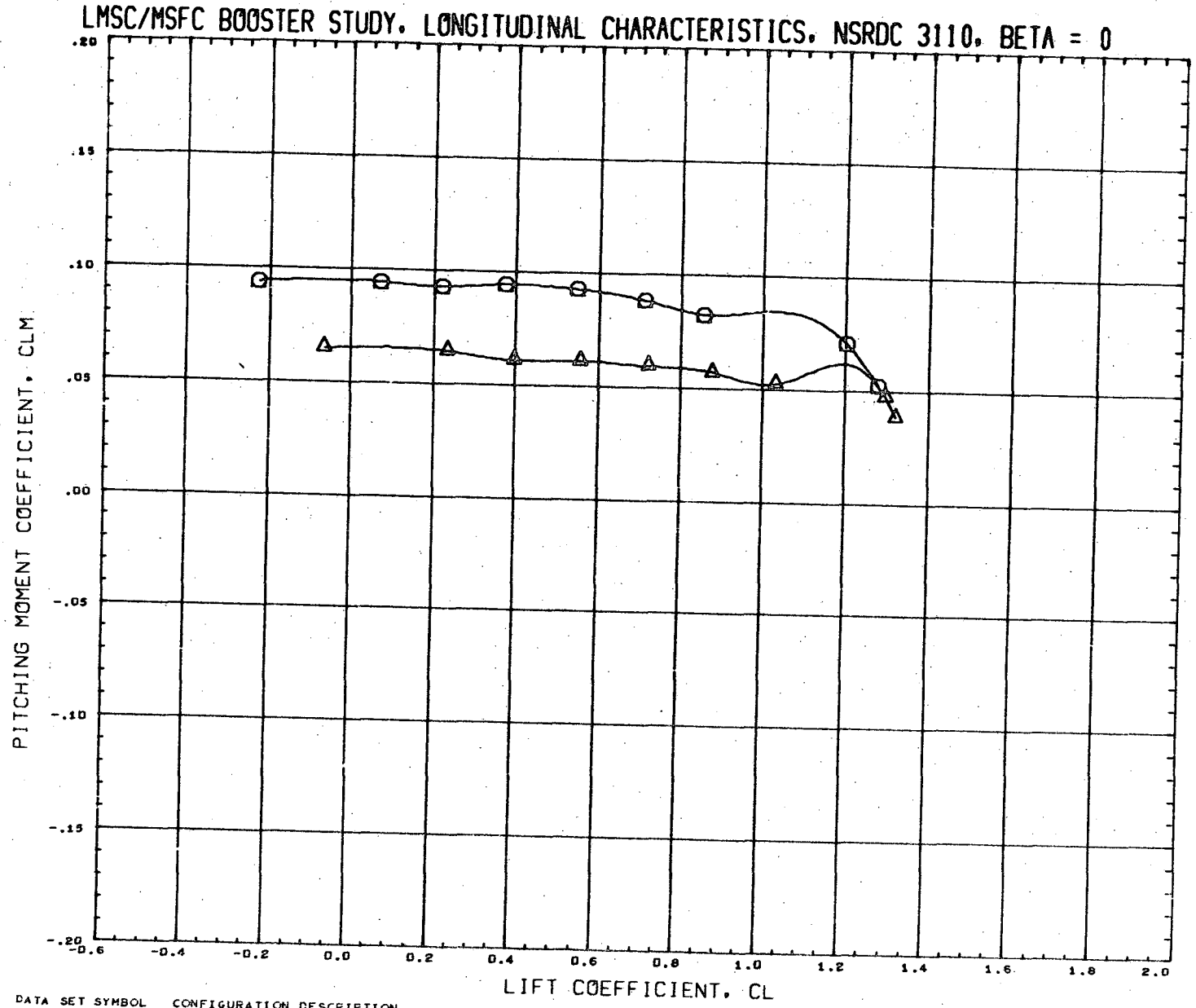
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2085) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 1.000 | 0.000 | 2.000 |
| (RN2117) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 1.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | .5000 | PERCNT |

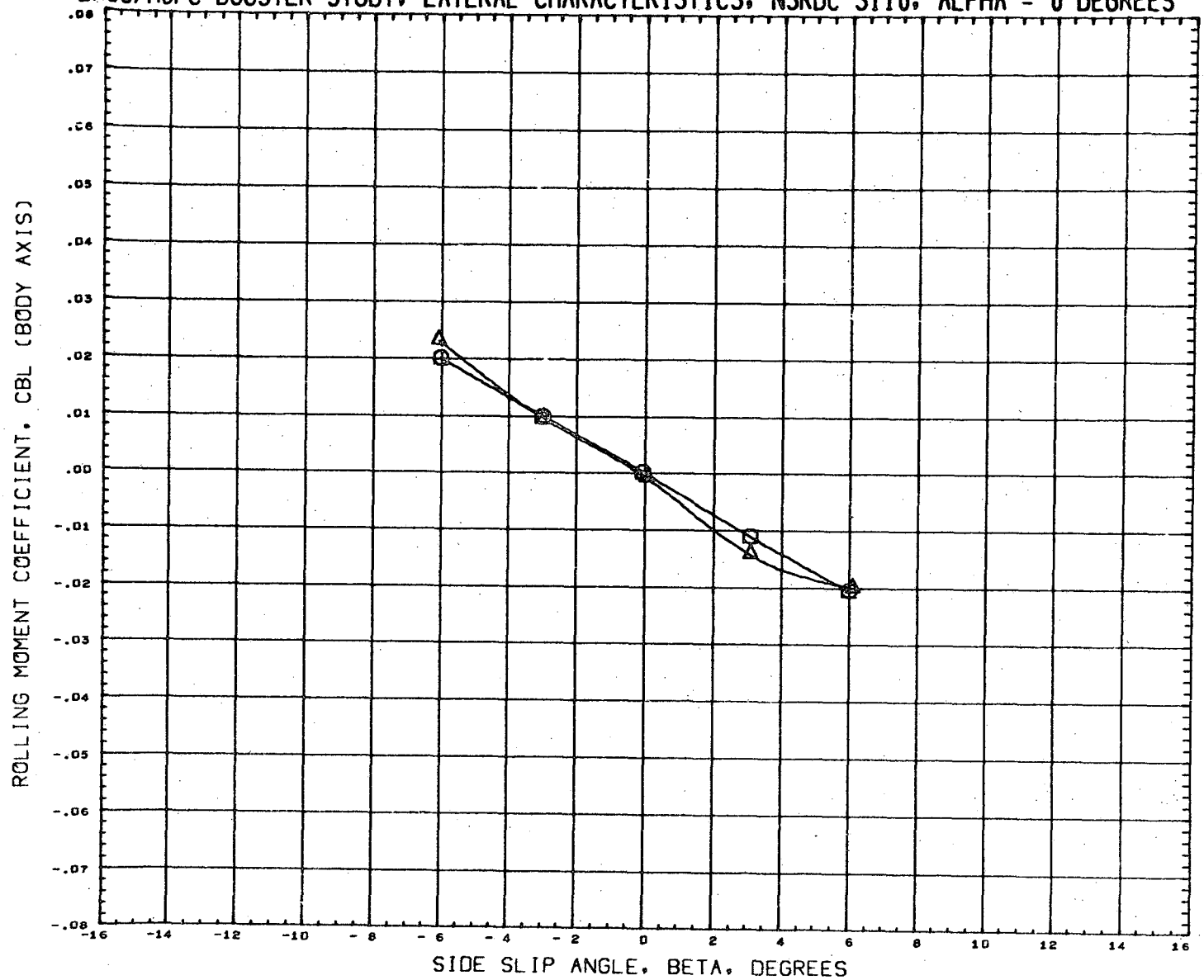



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2085) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 1.000 | 0.000 | 2.000 |
| (RN2117) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 1.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

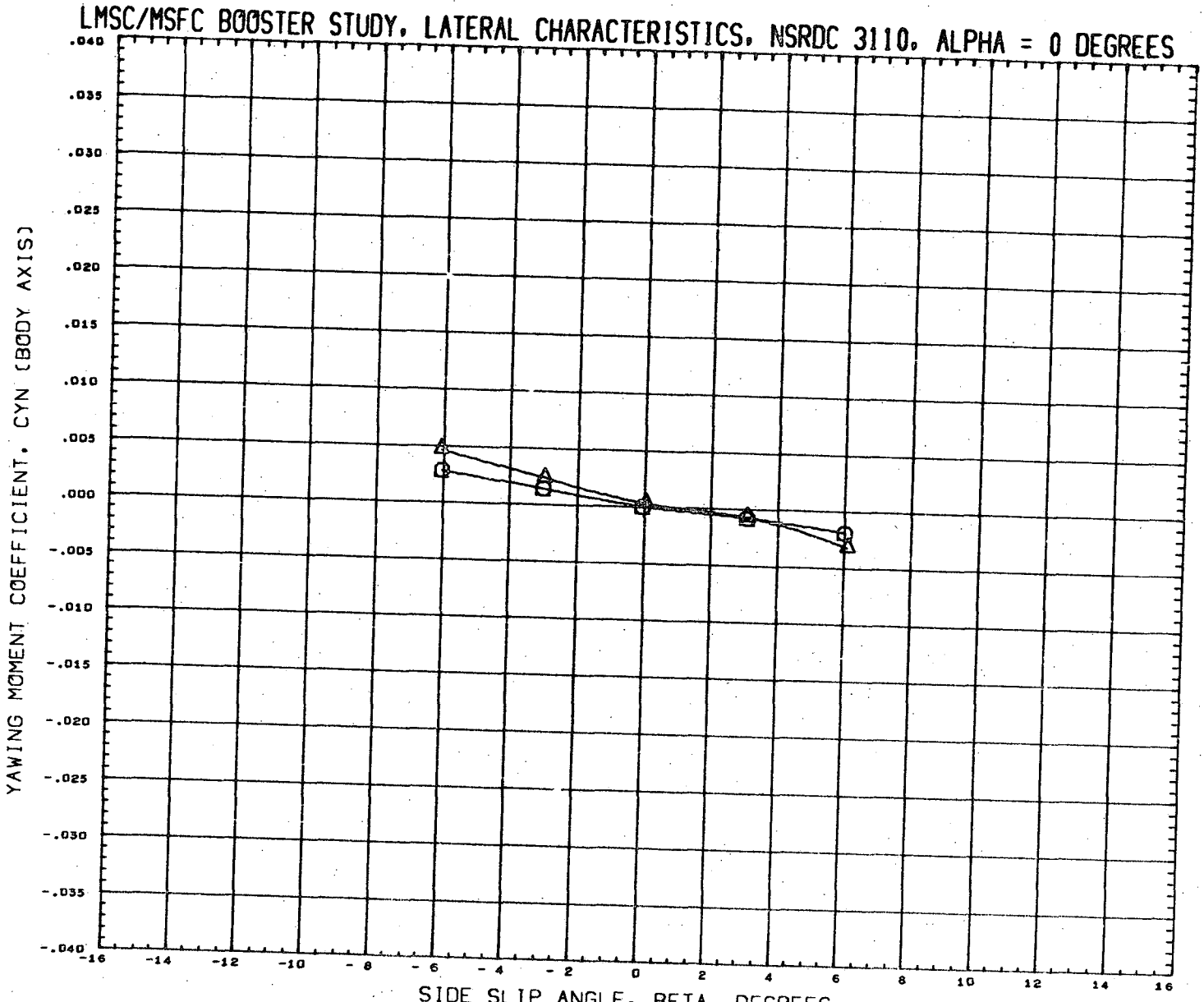
# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES




| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2086) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 1.000 | 0.000 | 2.000 |
| (RN2118) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 1.000 | 3.000 | 2.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |



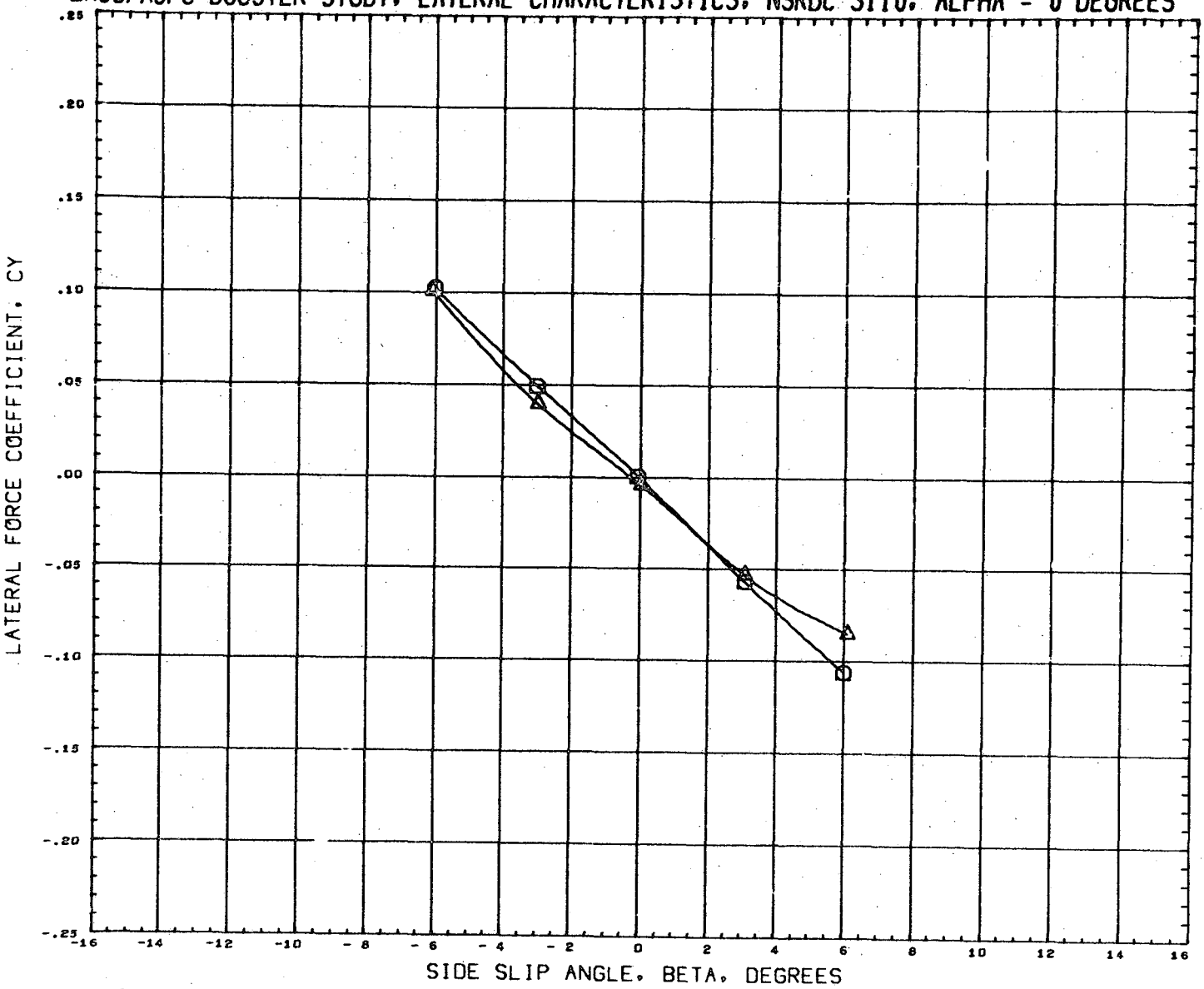

| DATA SET SYMBOL | CONFIGURATION DESCRIPTION |
|---|---|
| (RN2086) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 |
| (RN2118) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 |

| INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|
| 15.000 | 1.000 | 0.000 | 2.000 |
| 15.000 | 1.000 | 3.000 | 2.000 |

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

MACH 0.380

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

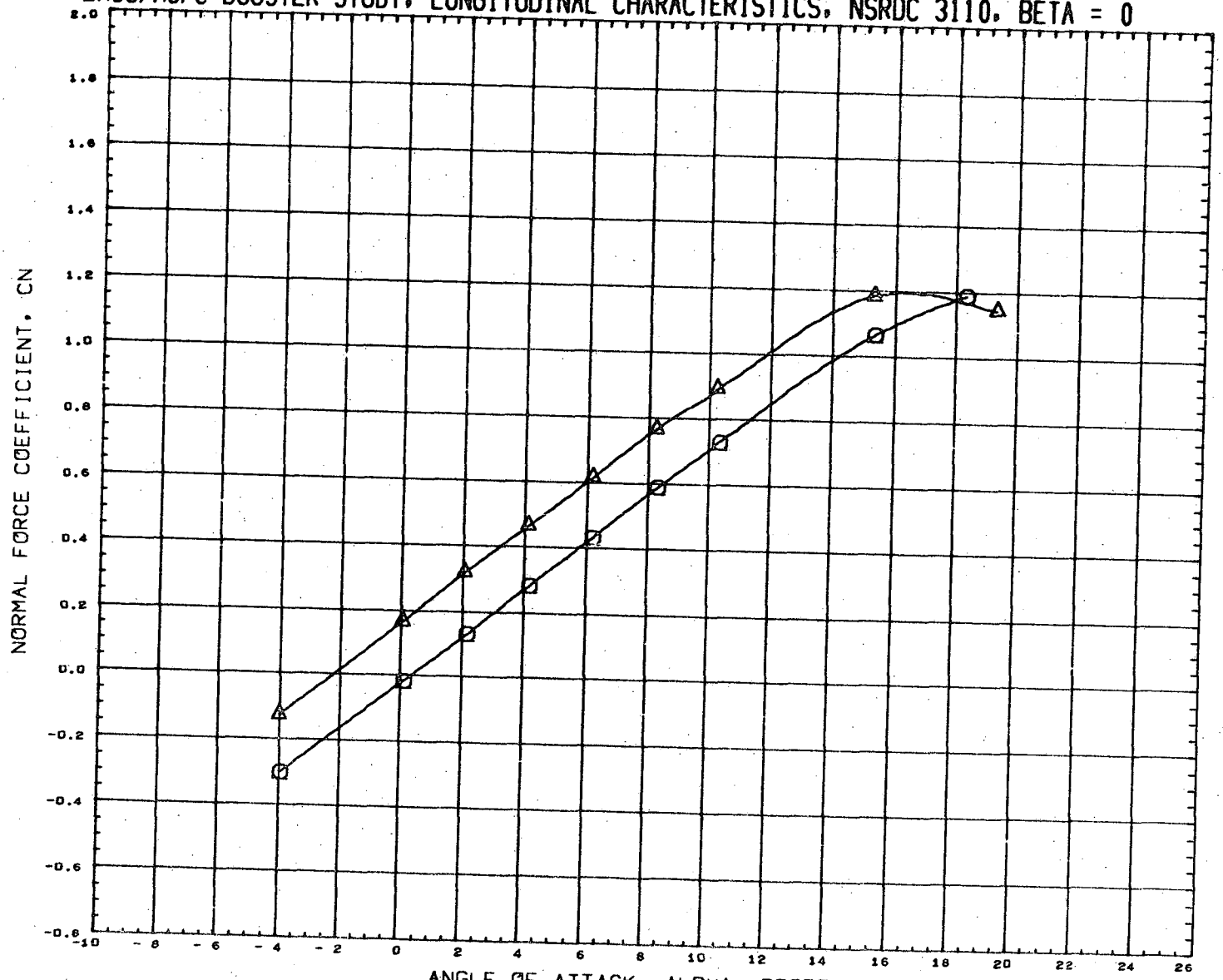



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2086) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 1.000 | 0.000 | 2.000 |
| (RN2118) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 1.000 | 3.000 | 2.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION |
|---|---|---|
| (RN2089) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 |
| (RN2121) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 |

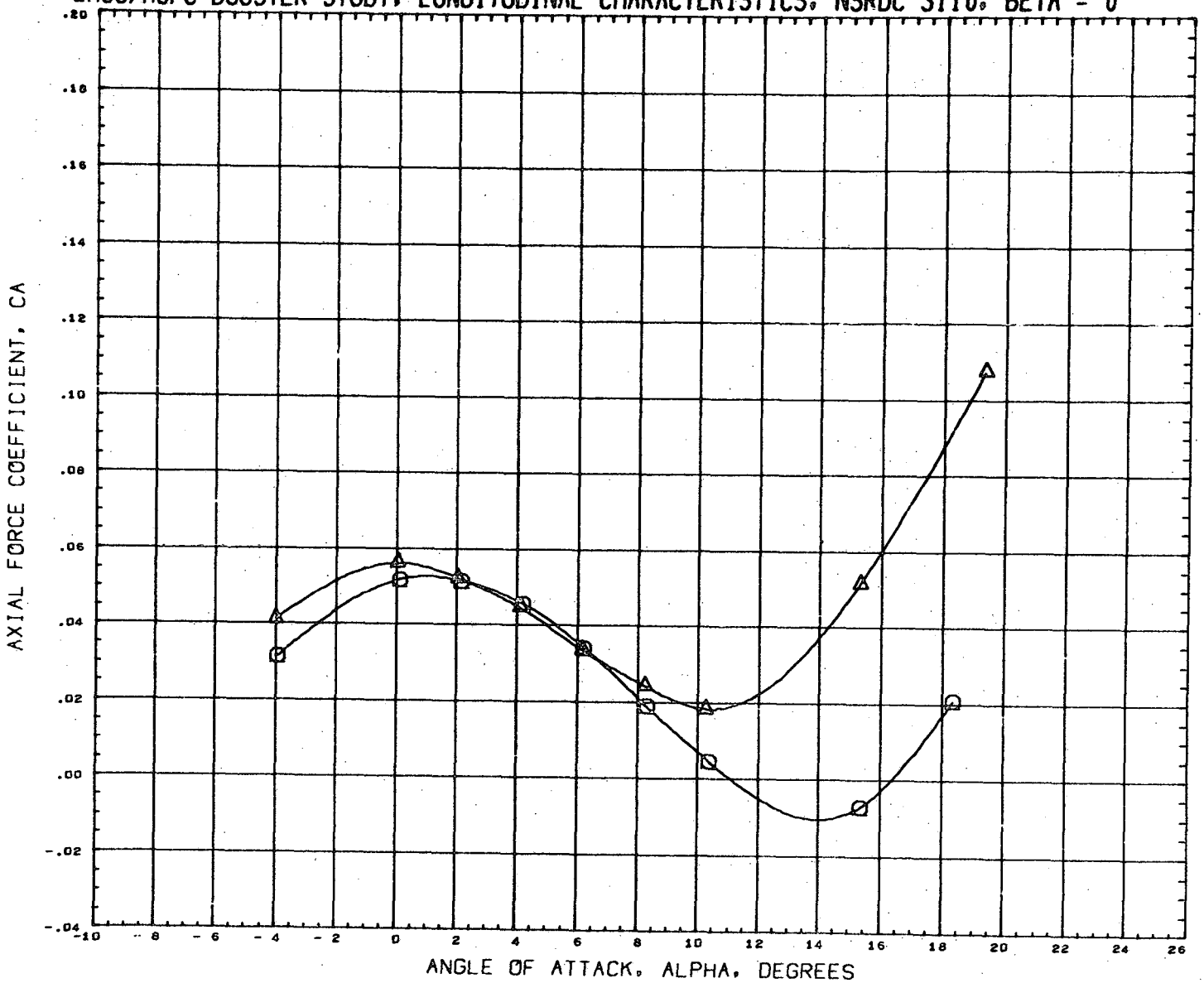
| INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|
| 3.000 | 2.000 | 0.000 | 2.000 |
| 3.000 | 2.000 | 3.000 | 2.000 |

MACH 0.380

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2089) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 2.000 | 0.000 | 2.000 |
| (RN2121) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 2.000 | 3.000 | 2.000 |

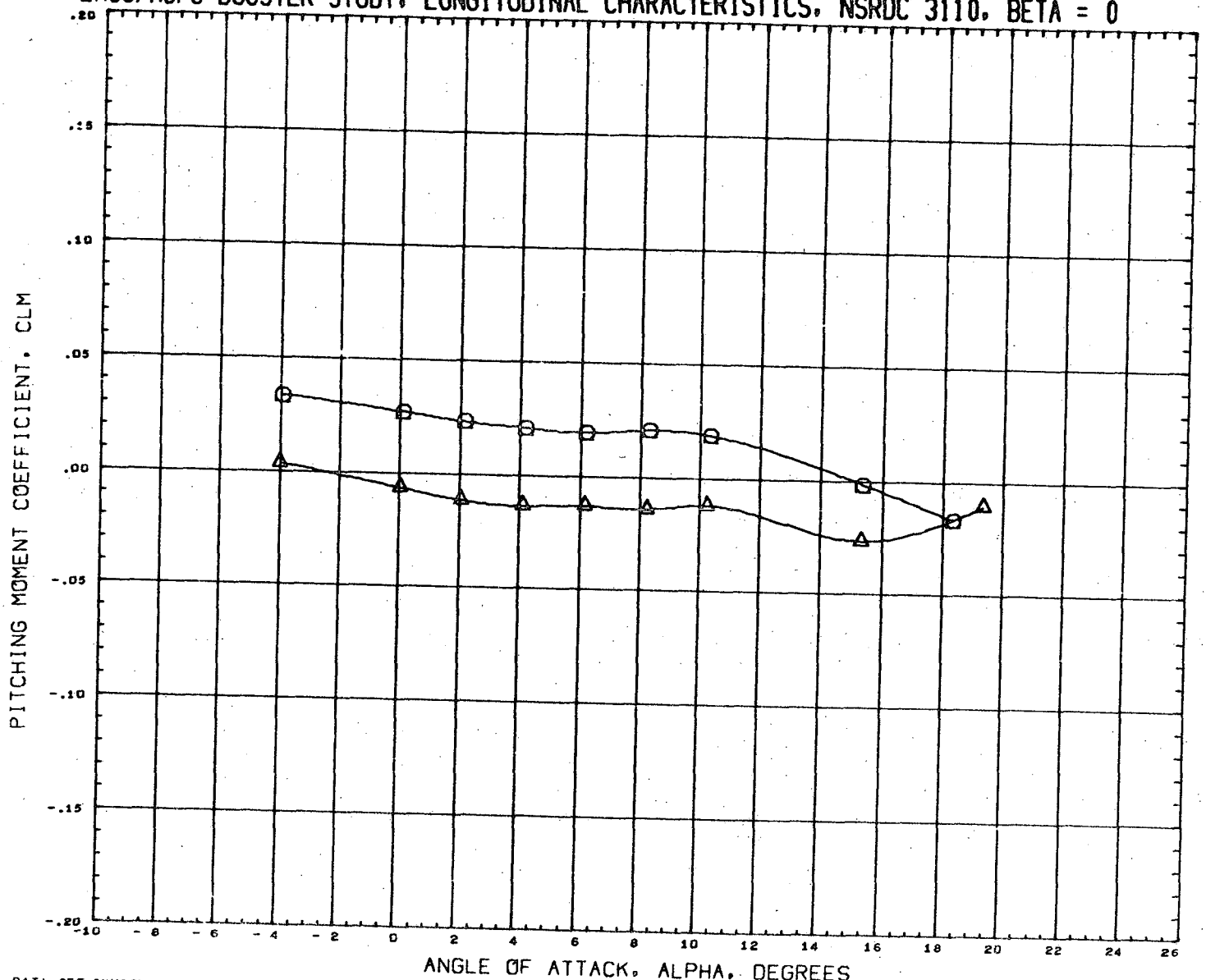
MACH 0.360

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |



50

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

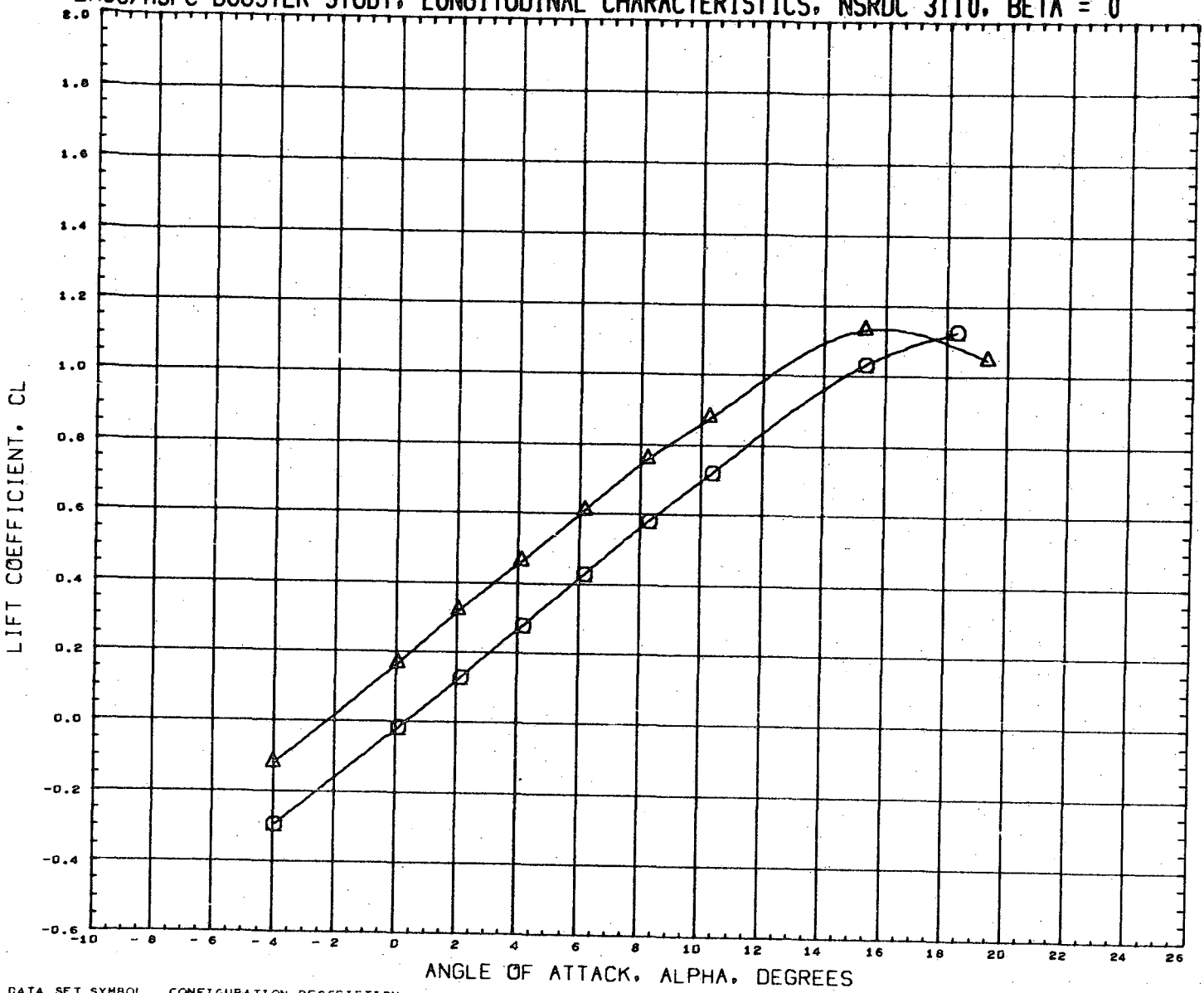



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2089) ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 2.000 | 0.000 | 2.000 |
| (RN2121) △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 2.000 | 3.000 | 2.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

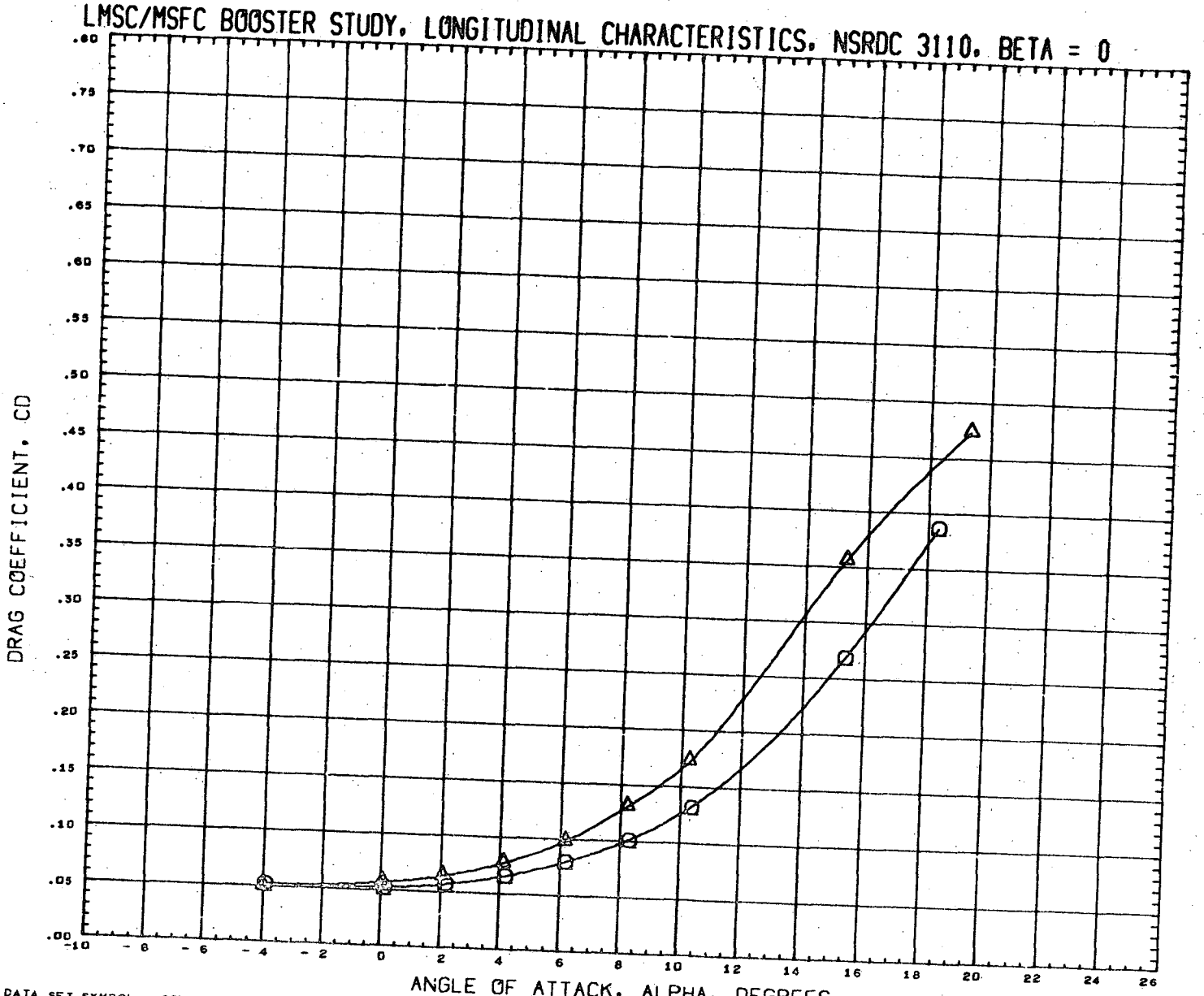
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2089) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 2.000 | 0.000 | 2.000 |
| (RN2121) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 2.000 | 3.000 | 2.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

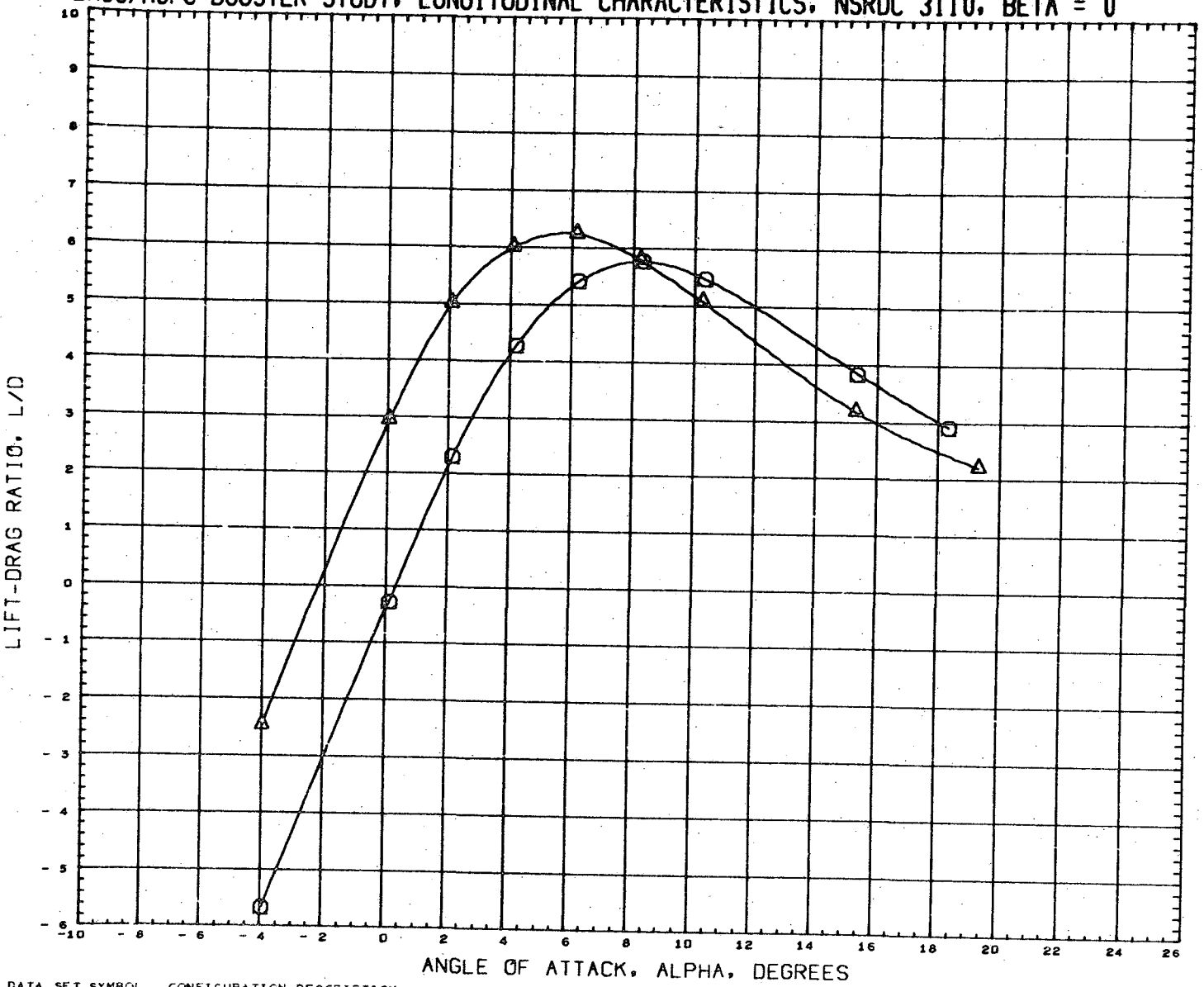



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2089) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 2.000 | 0.000 | 2.000 |
| (RN2121) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 2.000 | 3.000 | 2.000 |

MACH 0.360

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

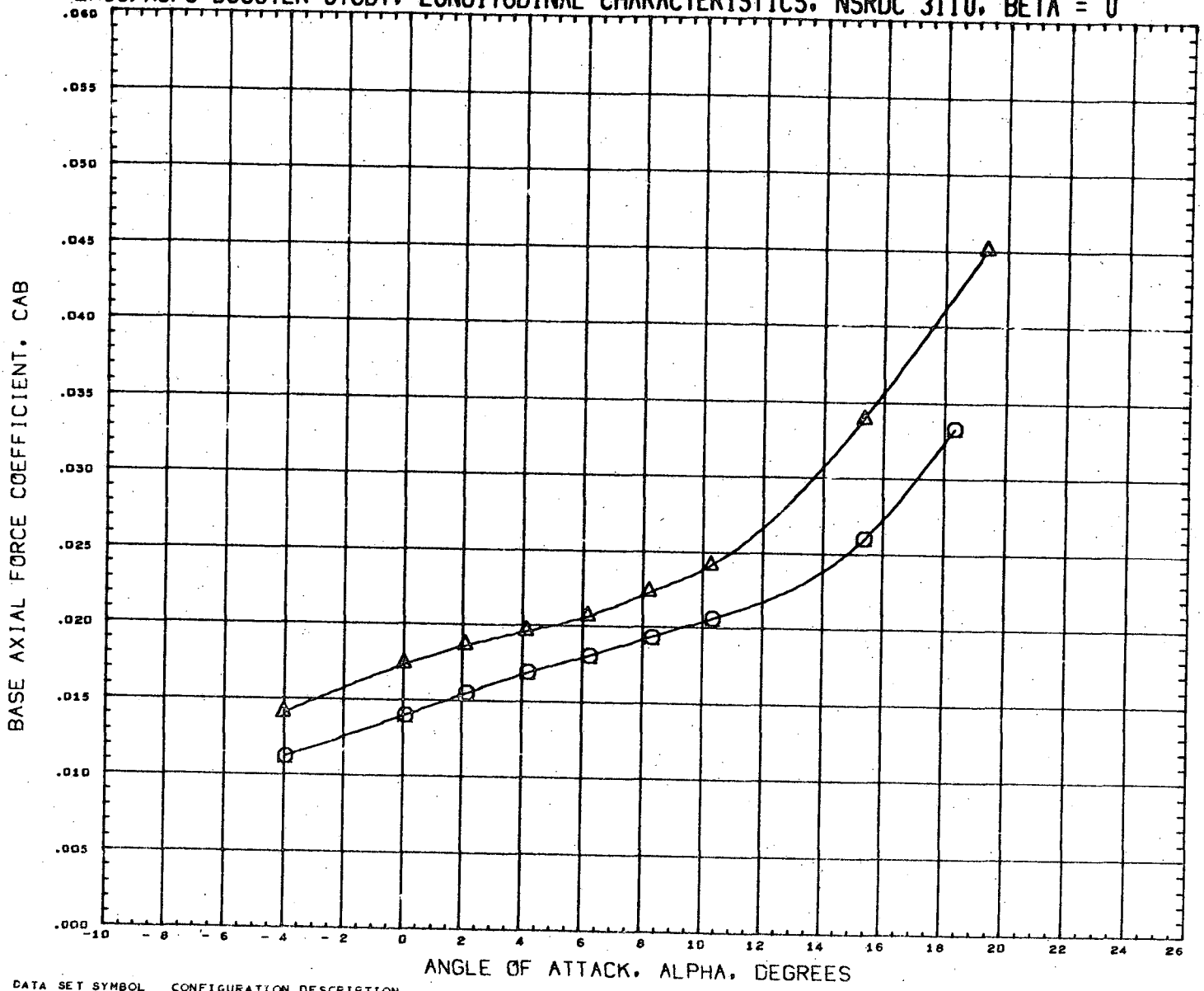



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2089) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 2.000 | 0.000 | 2.000 |
| (RN2121) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 2.000 | 3.000 | 2.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY. LONGITUDINAL CHARACTERISTICS. NSRDC 3110. BETA = 0

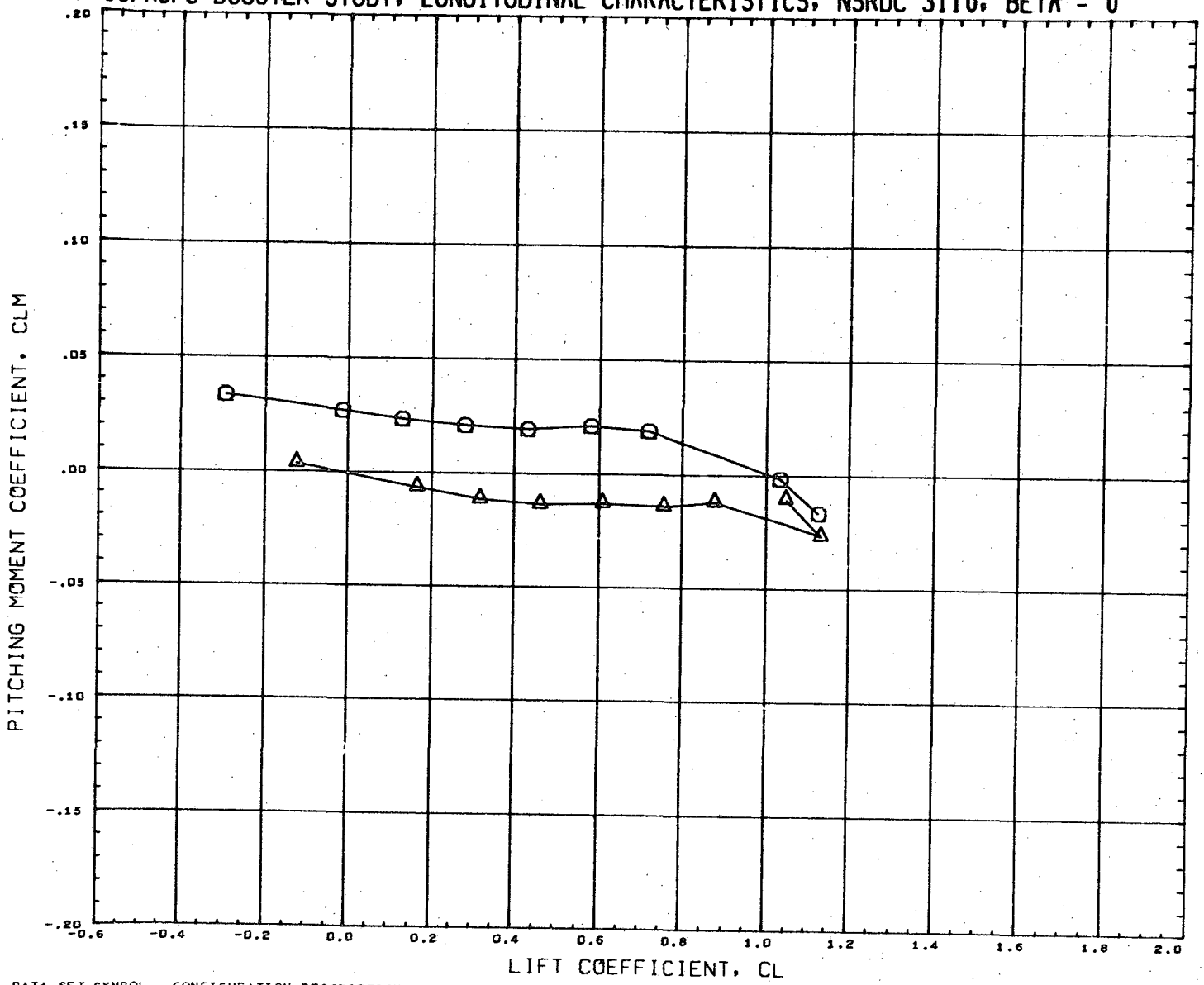



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2089) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 2.000 | 0.000 | 2.000 |
| (RN2121) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 2.000 | 3.000 | 2.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

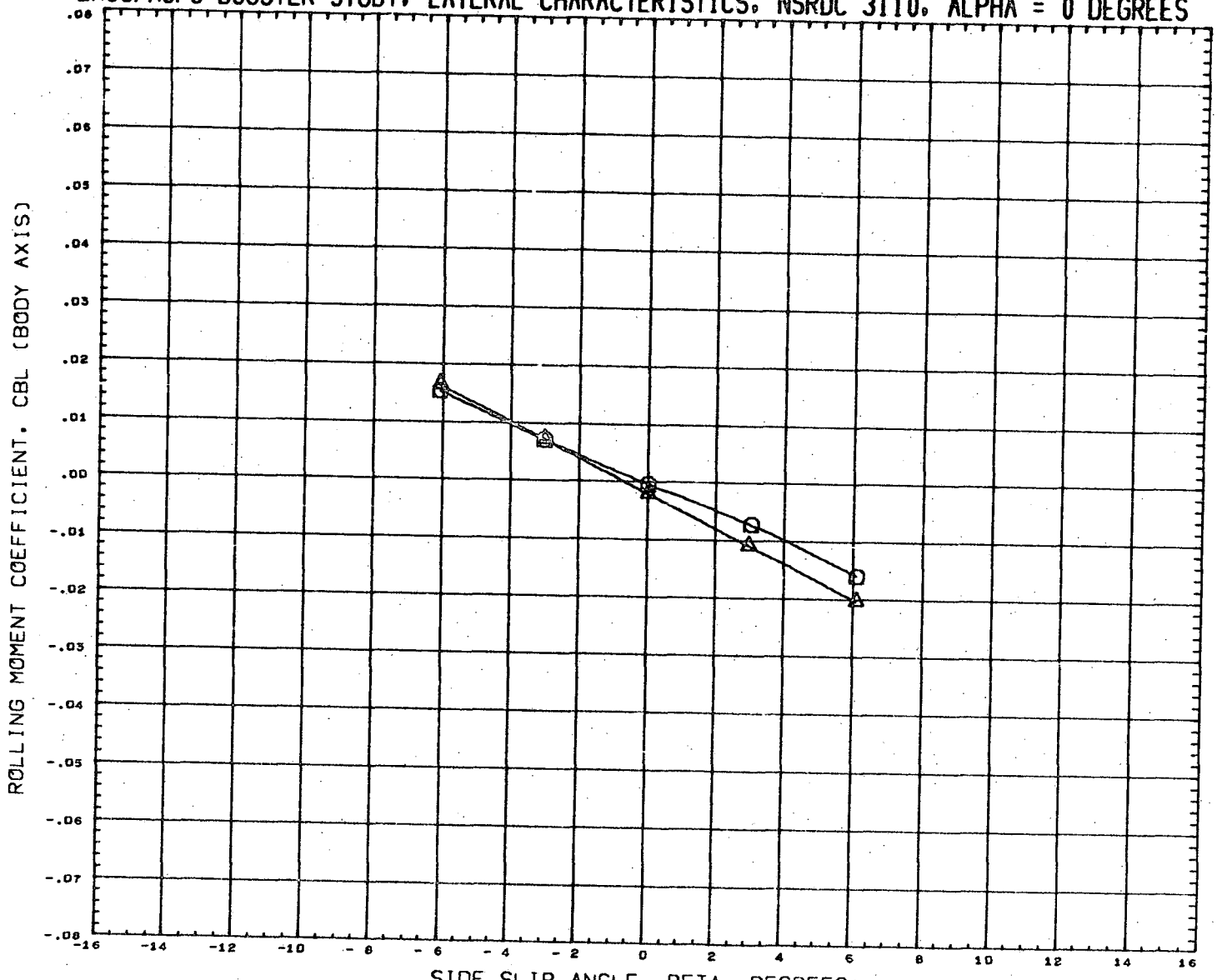



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2089) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 2.000 | 0.000 | 2.000 |
| (RN2121) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 2.000 | 3.000 | 2.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

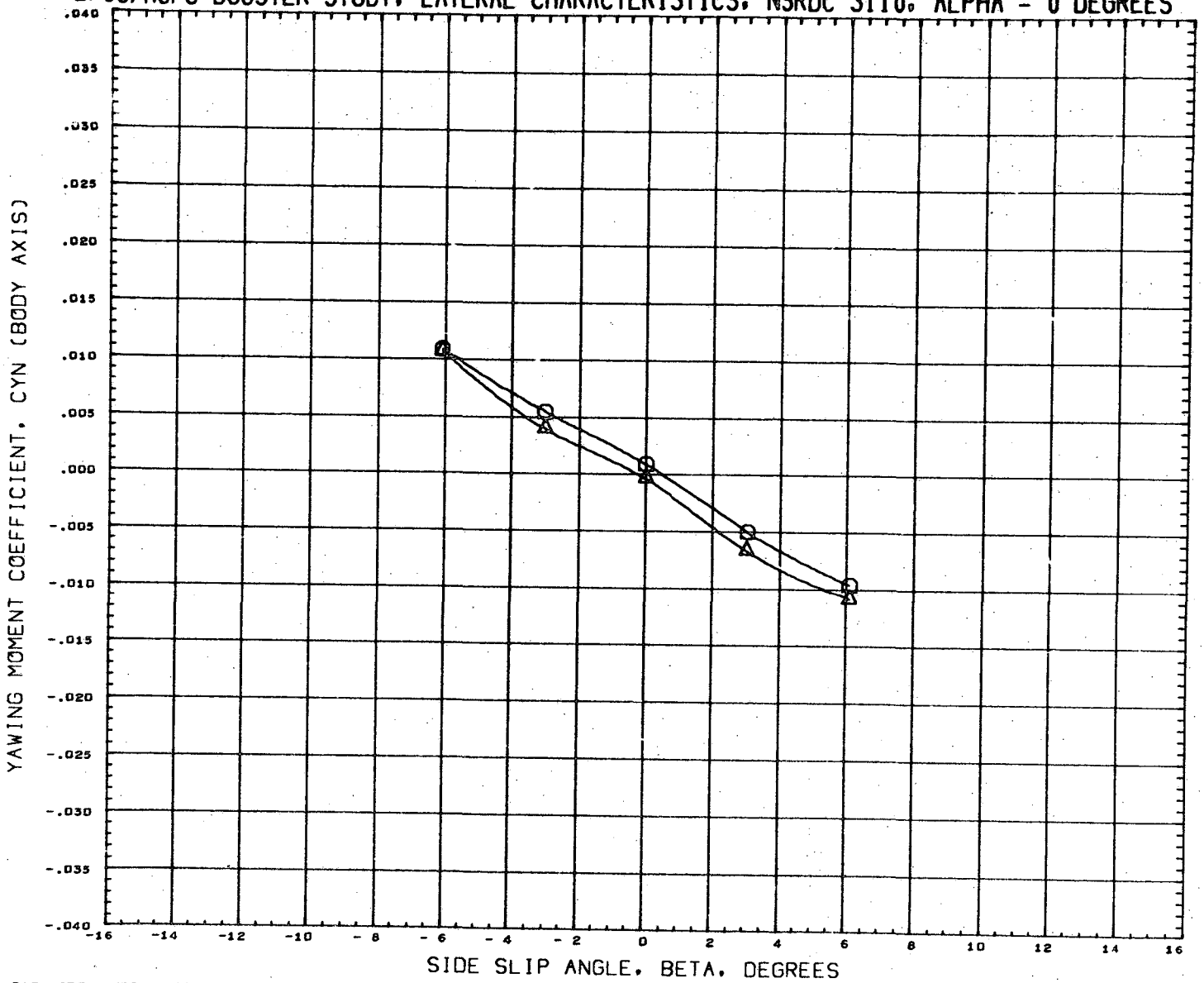



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2090) ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 2.000 | 0.000 | 2.000 |
| (RN2122) △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 2.000 | 3.000 | 2.000 |

MACH 0.379

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

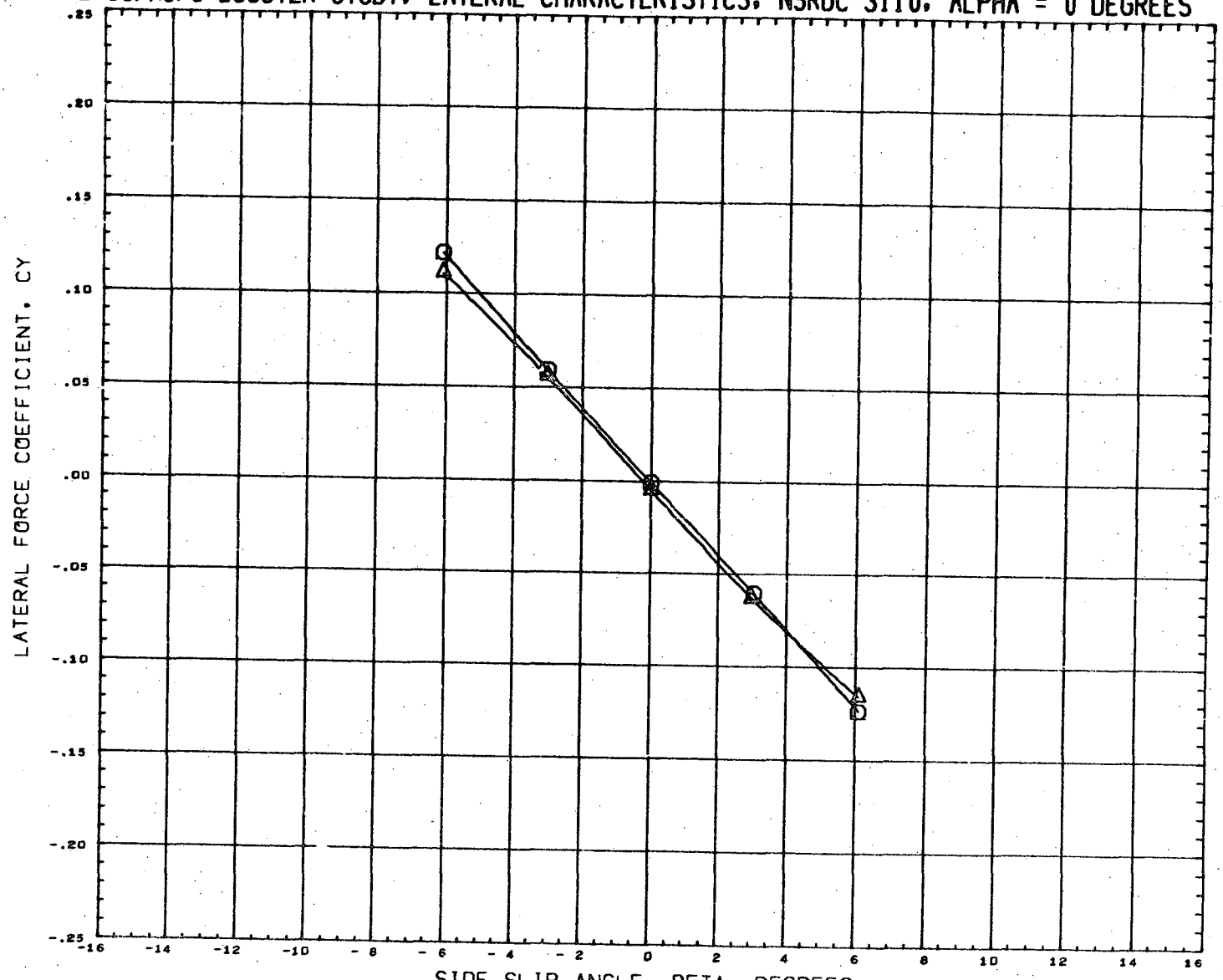



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2090) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 2.000 | 0.000 | 2.000 |
| (RN2122) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 2.000 | 3.000 | 2.000 |

MACH 0.379

| REFEPENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY. LATERAL CHARACTERISTICS. NSRDC 3110. ALPHA = 0 DEGREES

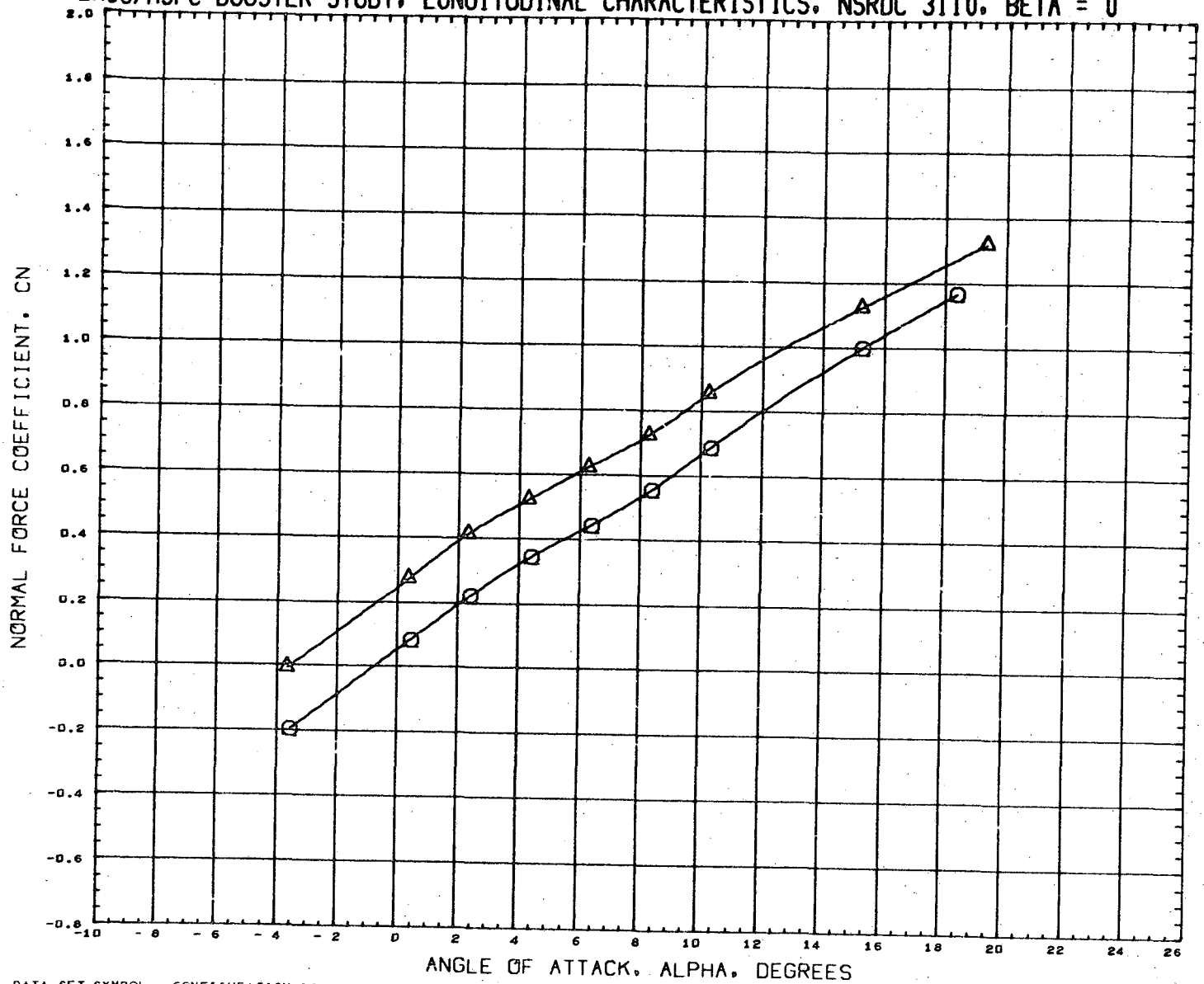



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN209D) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 2.000 | 0.000 | 2.000 |
| (RN2122) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 3.000 | 2.000 | 3.000 | 2.000 |

MACH 0.379

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

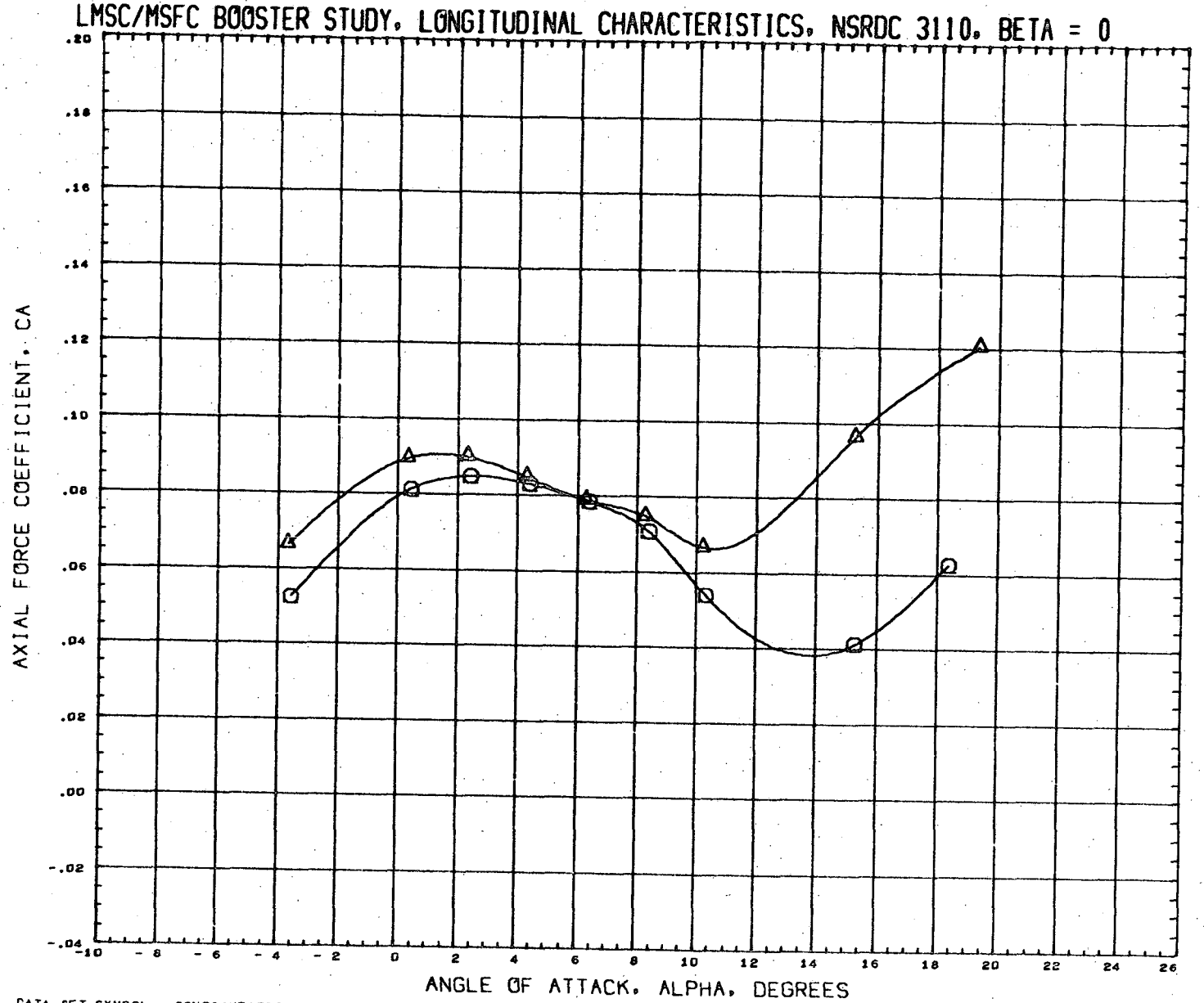
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2093) | ○ | NSDRC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 2.000 | 0.000 | 2.000 |
| (RN2125) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 2.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

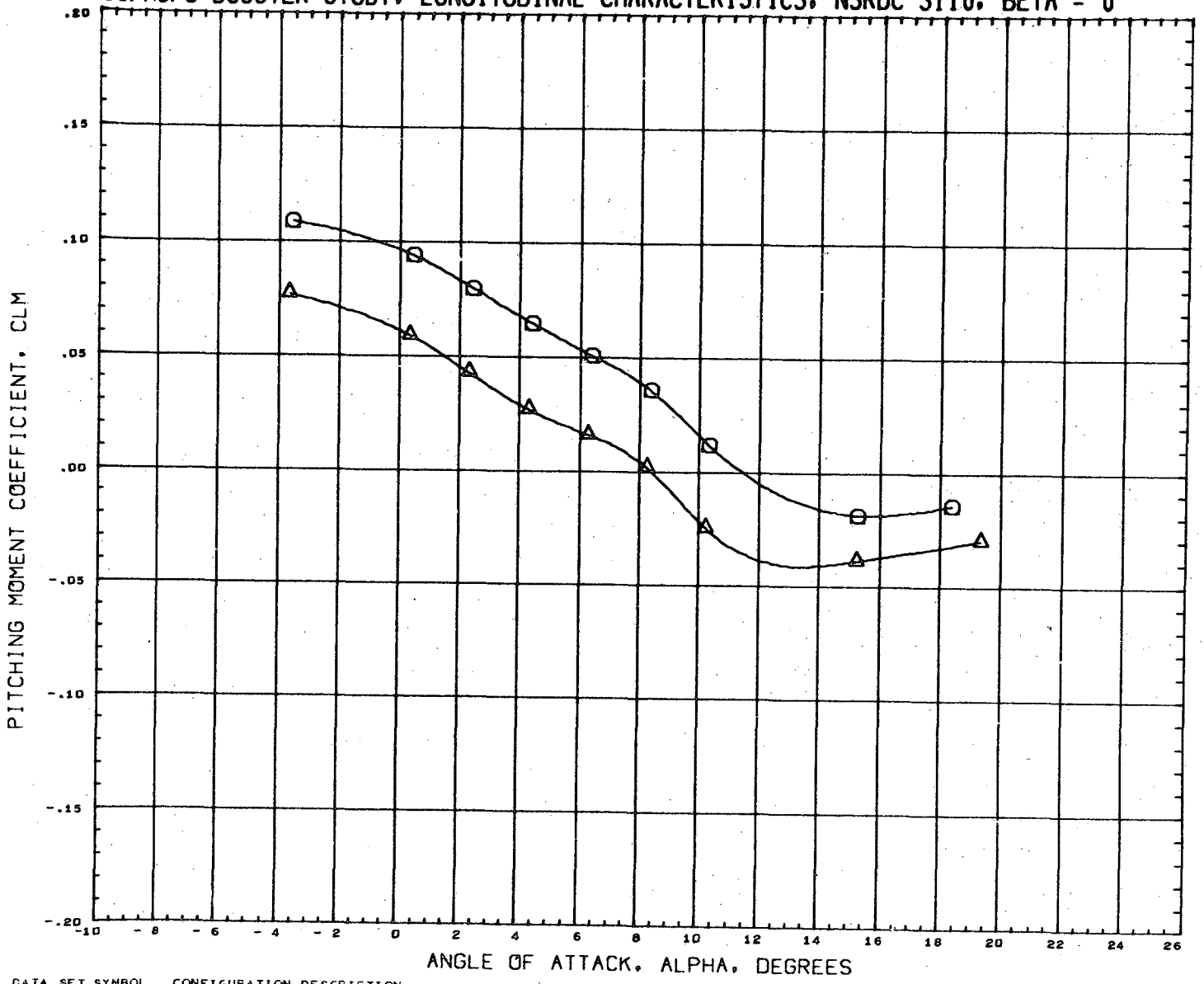



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2093) | ○ | NSDRC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 2.000 | 0.000 | 2.000 |
| (RN2125) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 2.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

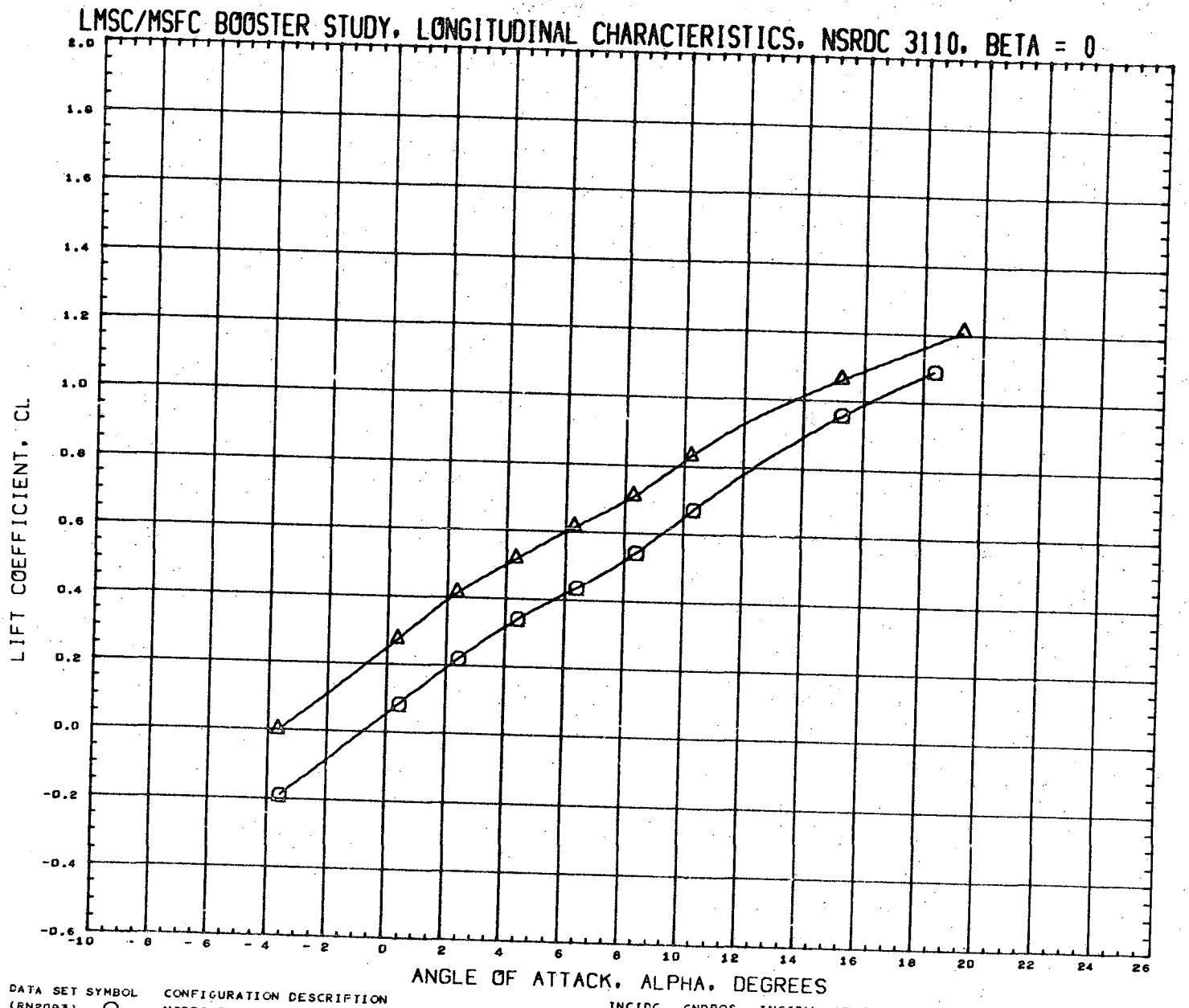
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2093) | ○ | NSDRC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 2.000 | 0.000 | 2.000 |
| (RN2125) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 2.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |



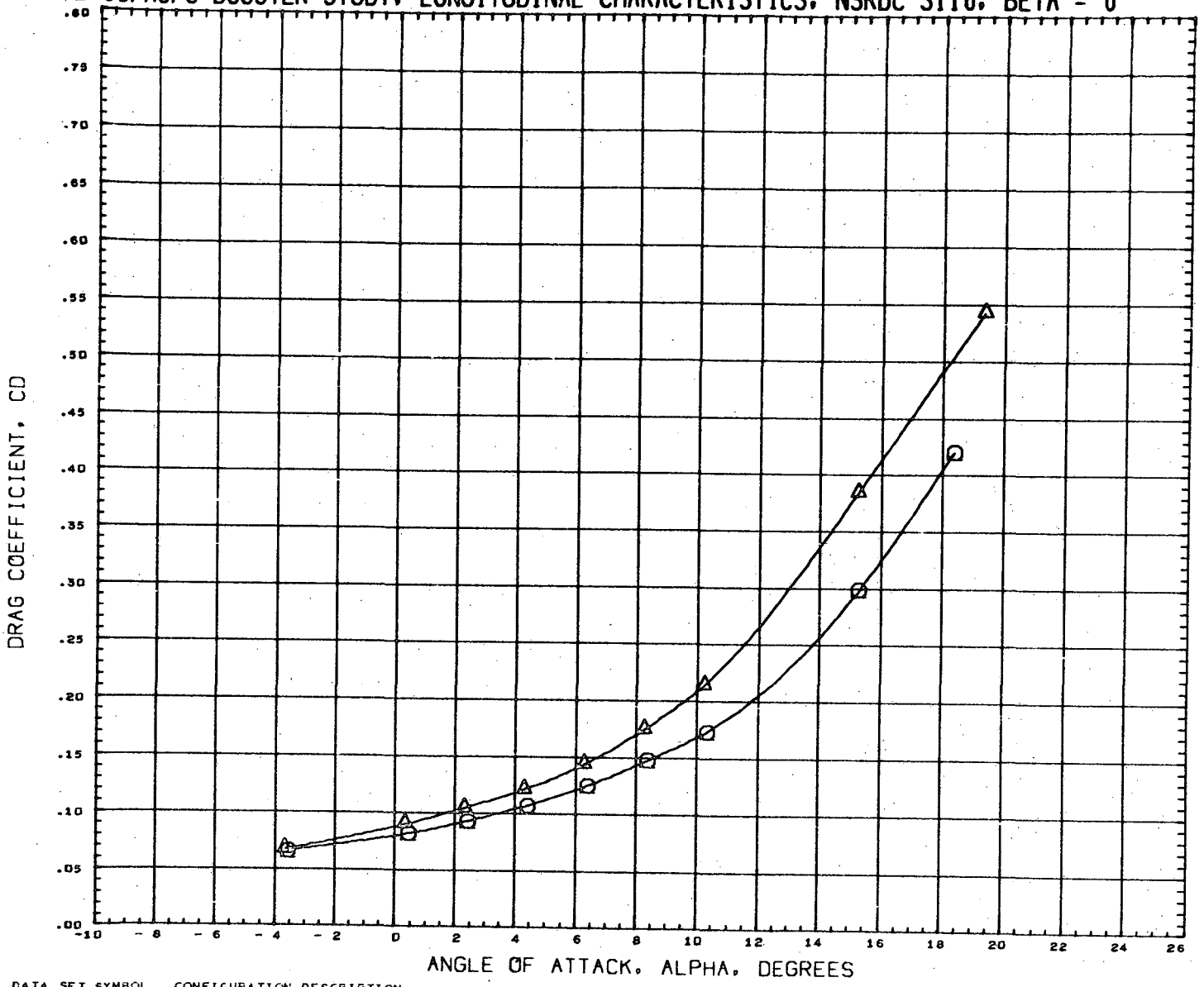

| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCJDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2093) | ○ | NSDRC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 2.000 | 0.000 | 2.000 |
| (RN2125) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 2.000 | 3.000 | 2.000 |

MACH 0.381

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

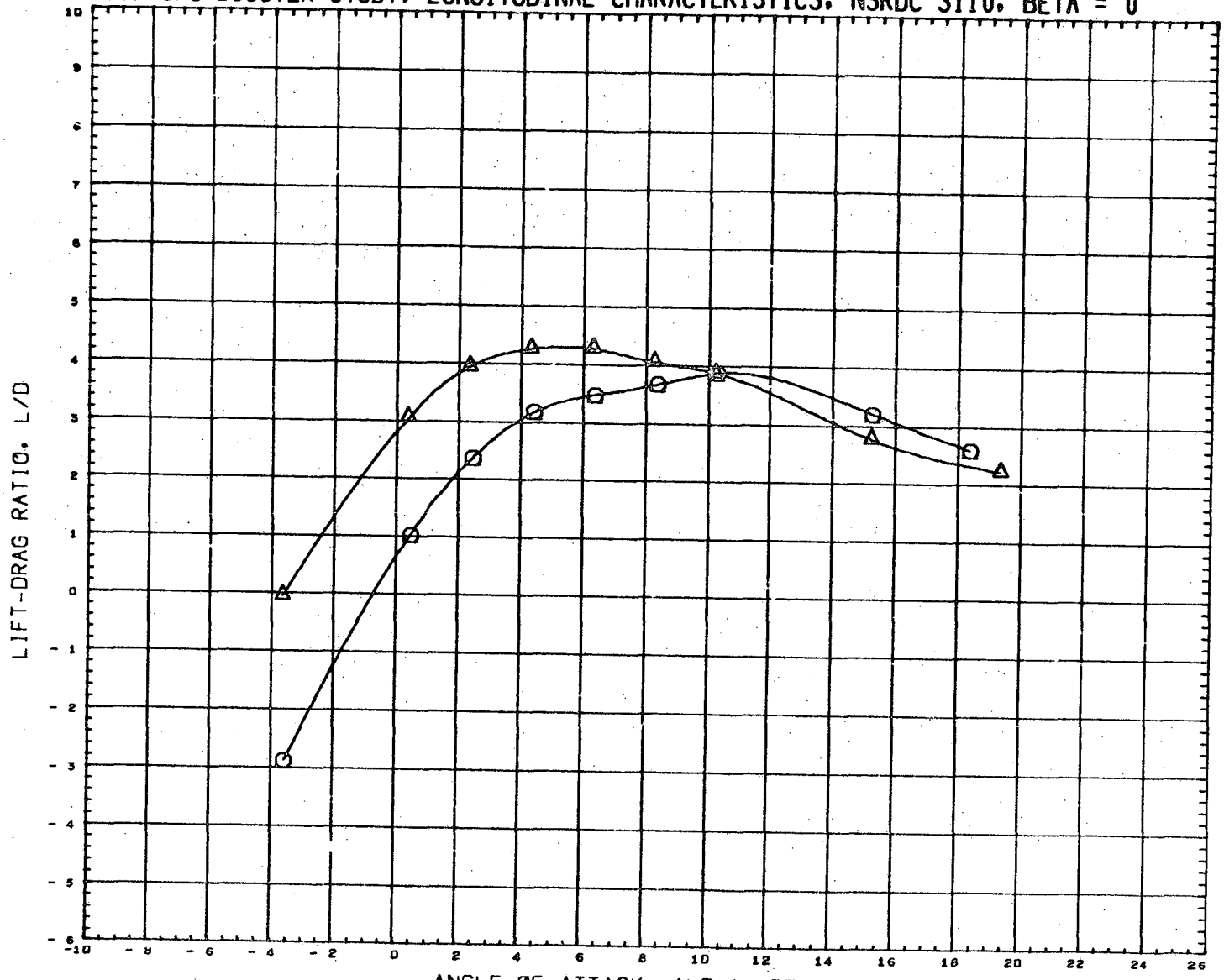



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2093) | ○ | NSDRC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 2.000 | 0.000 | 2.000 |
| (RN2125) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 2.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY. LONGITUDINAL CHARACTERISTICS. NSRDC 3110. BETA = 0

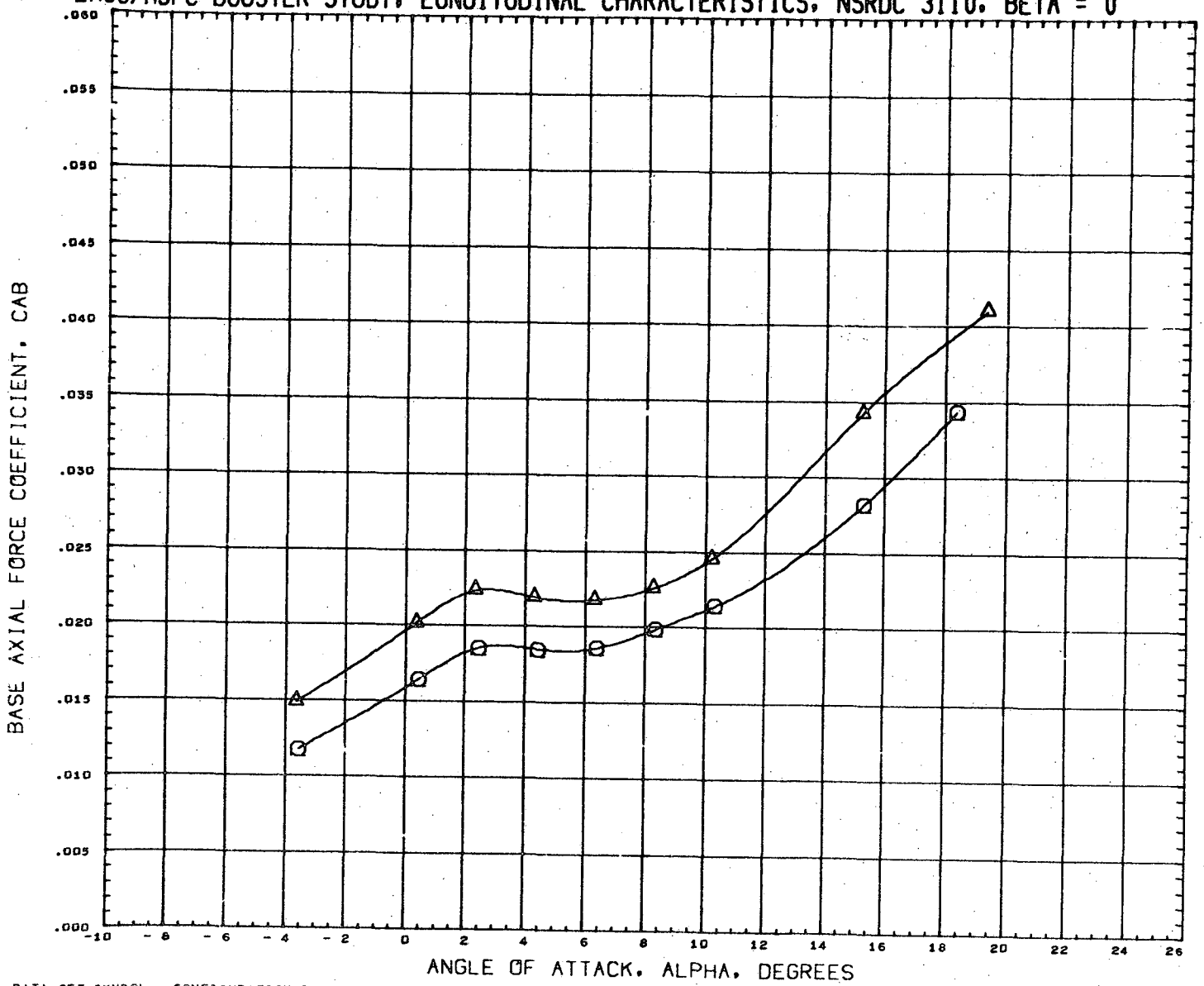



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2093) | NSDRC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 2.000 | 0.000 | 2.000 |
| (RN2125) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 2.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION |
|---|---|---|
| (RN2093) | ○ | NSDRC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 |
| (RN2125) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 |

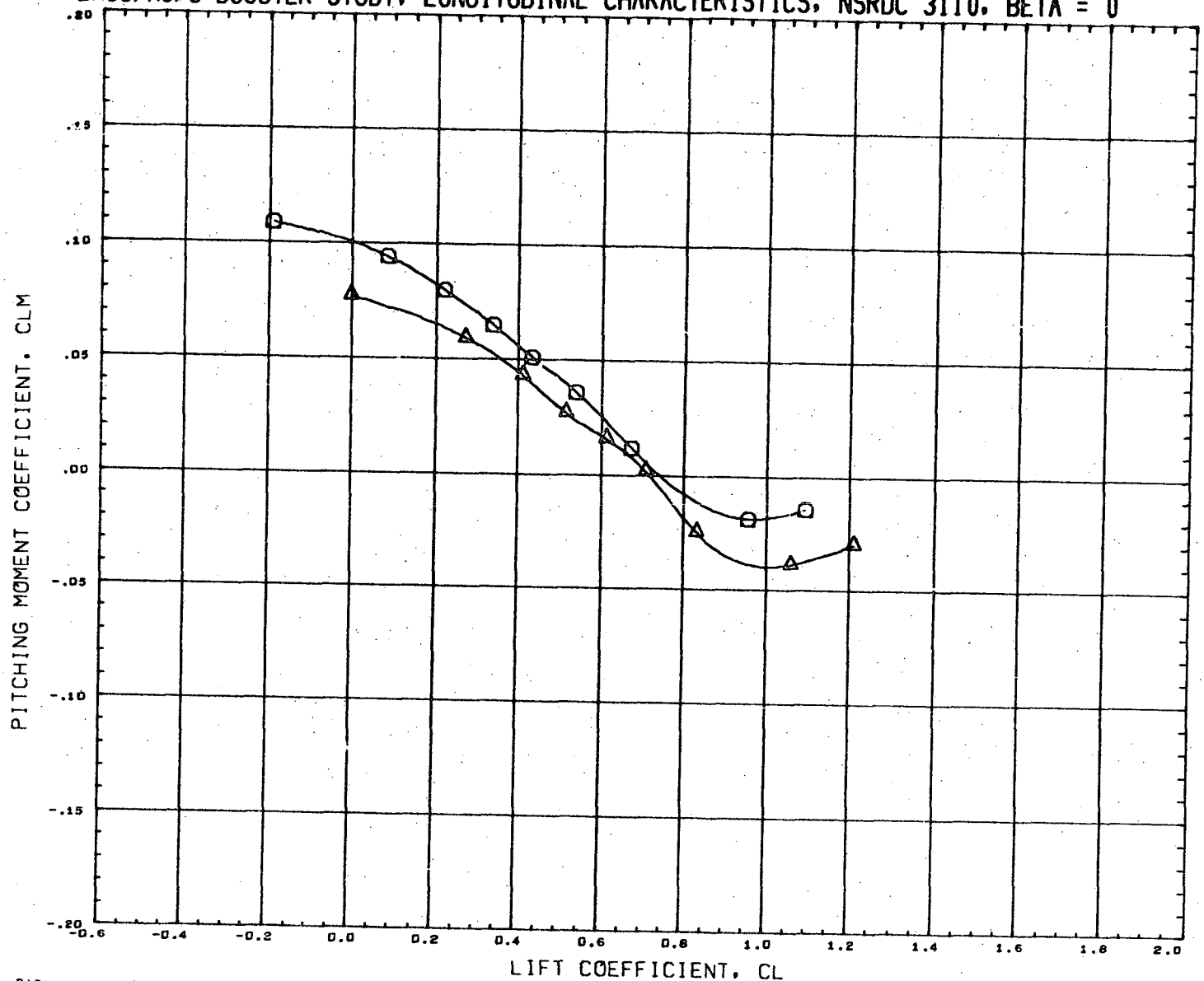
| INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|
| 15.000 | 2.000 | 0.000 | 2.000 |
| 15.000 | 2.000 | 3.000 | 2.000 |

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

MACH 0.381

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

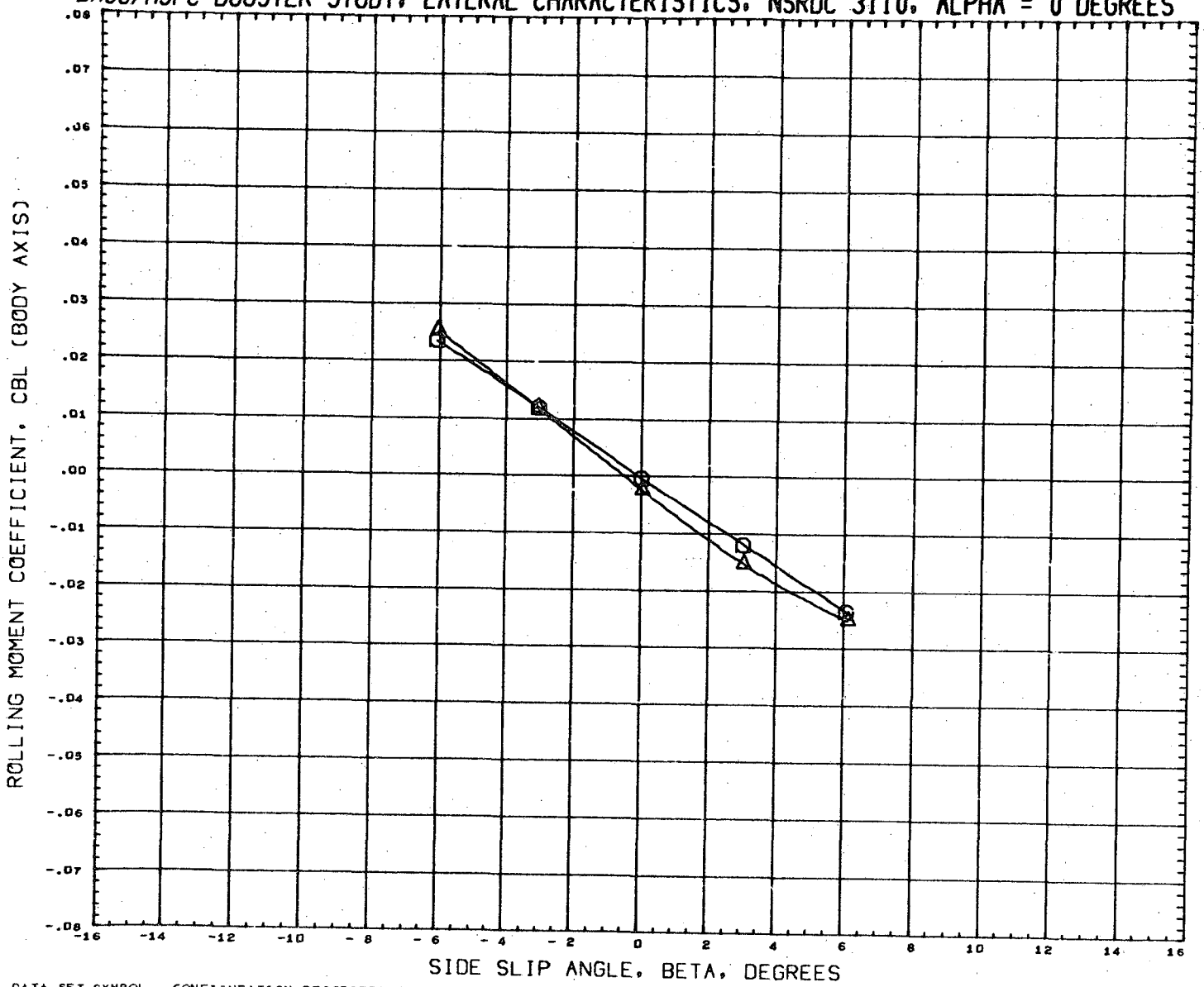



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2093) | NSDRC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 2.000 | 0.000 | 2.000 |
| (RN2125) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 2.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

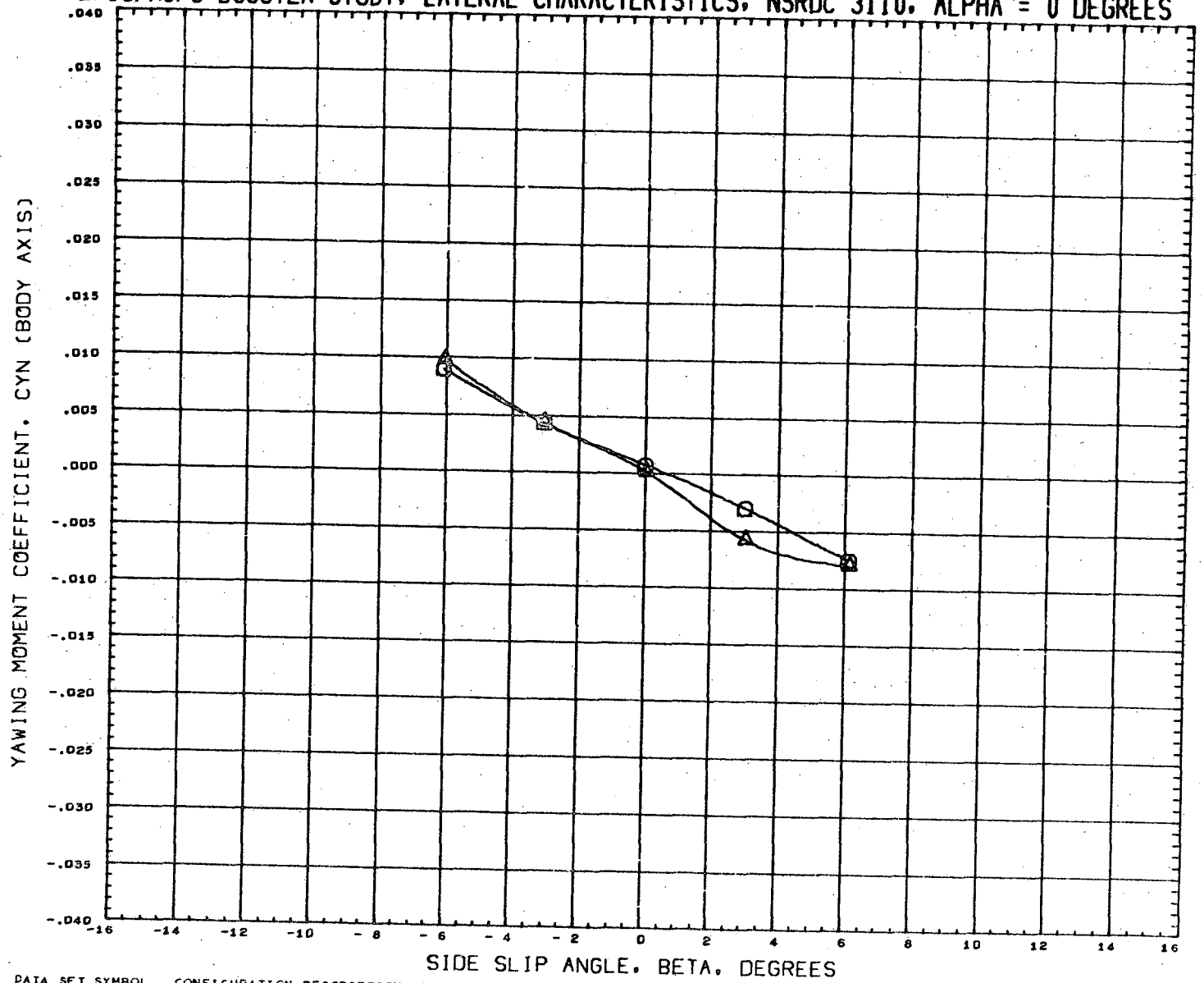



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2094) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 2.000 | 0.000 | 2.000 |
| (RN2126) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 2.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

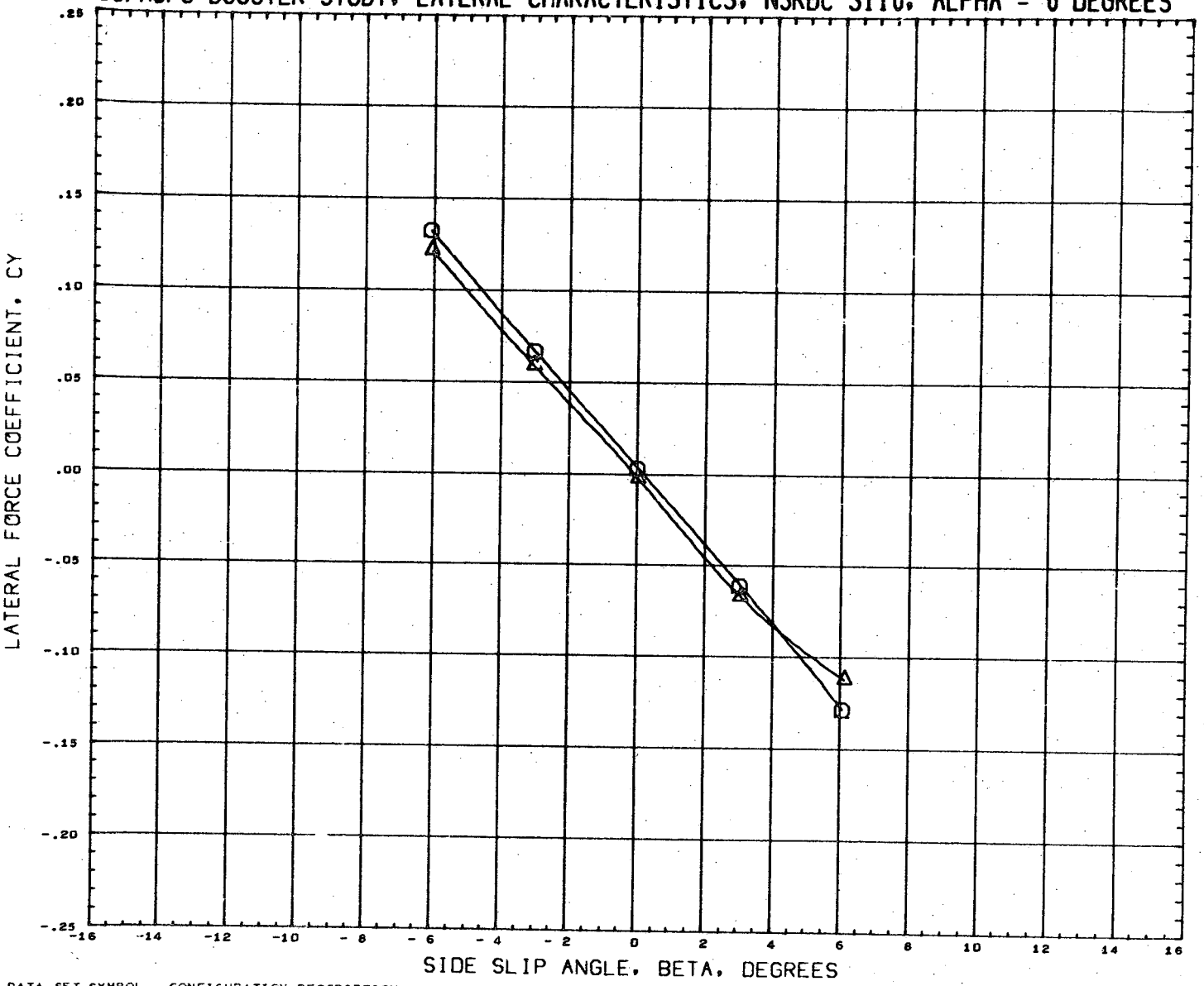



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2094) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 2.000 | 0.000 | 2.000 |
| (RN2126) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 2.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

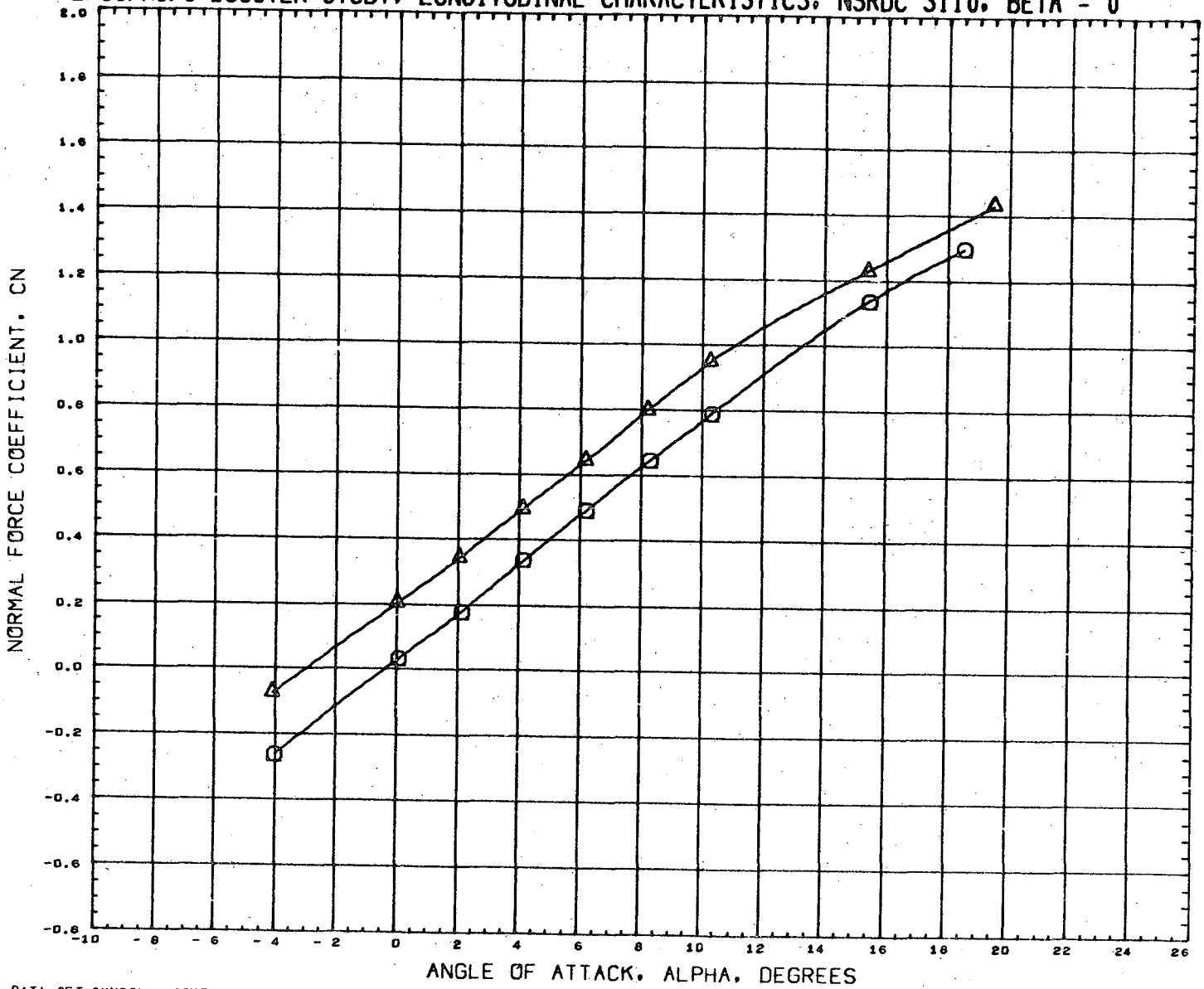



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2094) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 2.000 | 0.000 | 2.000 |
| (RN2126) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V1 | 15.000 | 2.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

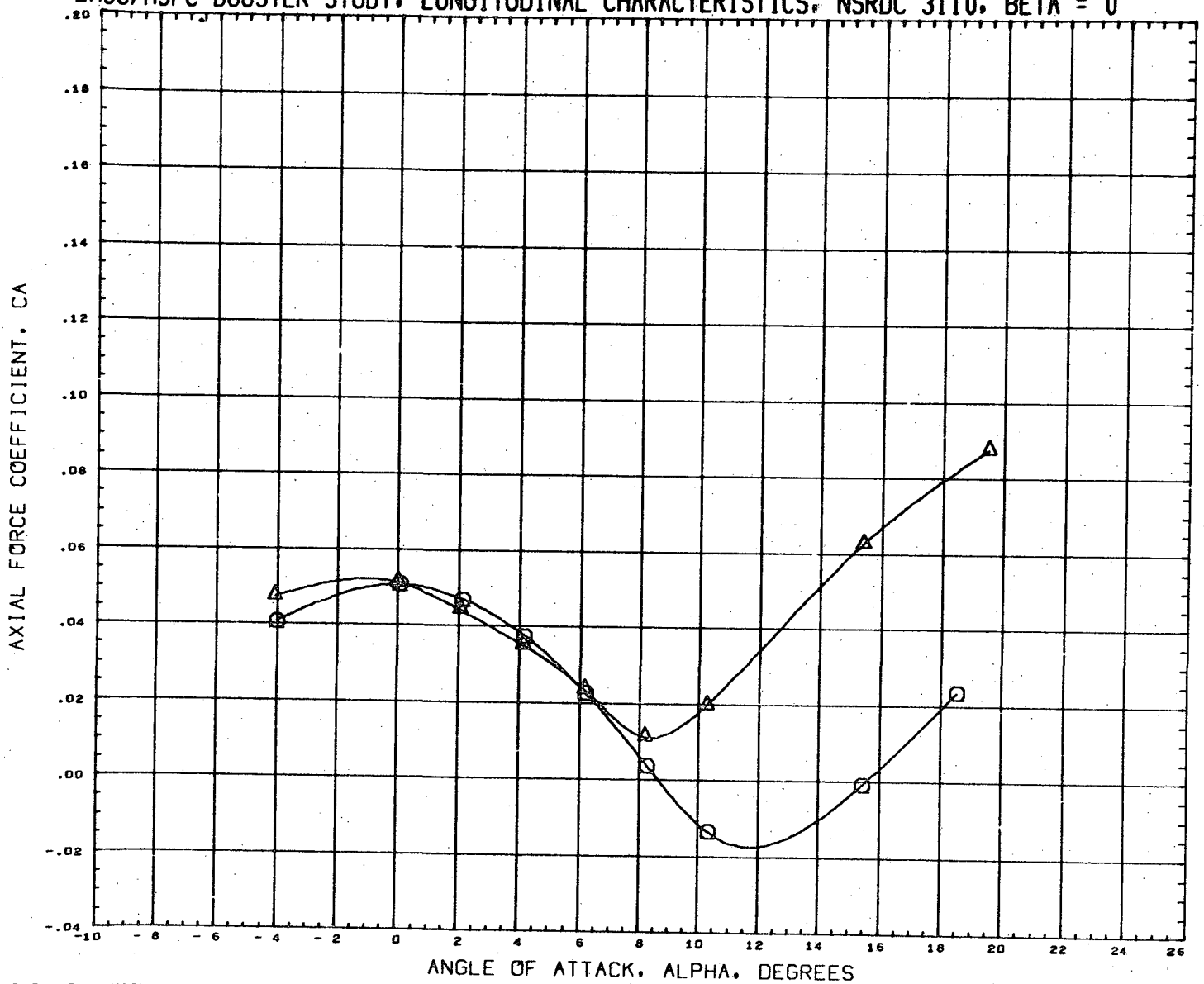



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2129) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 1.000 | 0.000 | 1.000 |
| (RN2161) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 1.000 | 3.000 | 1.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

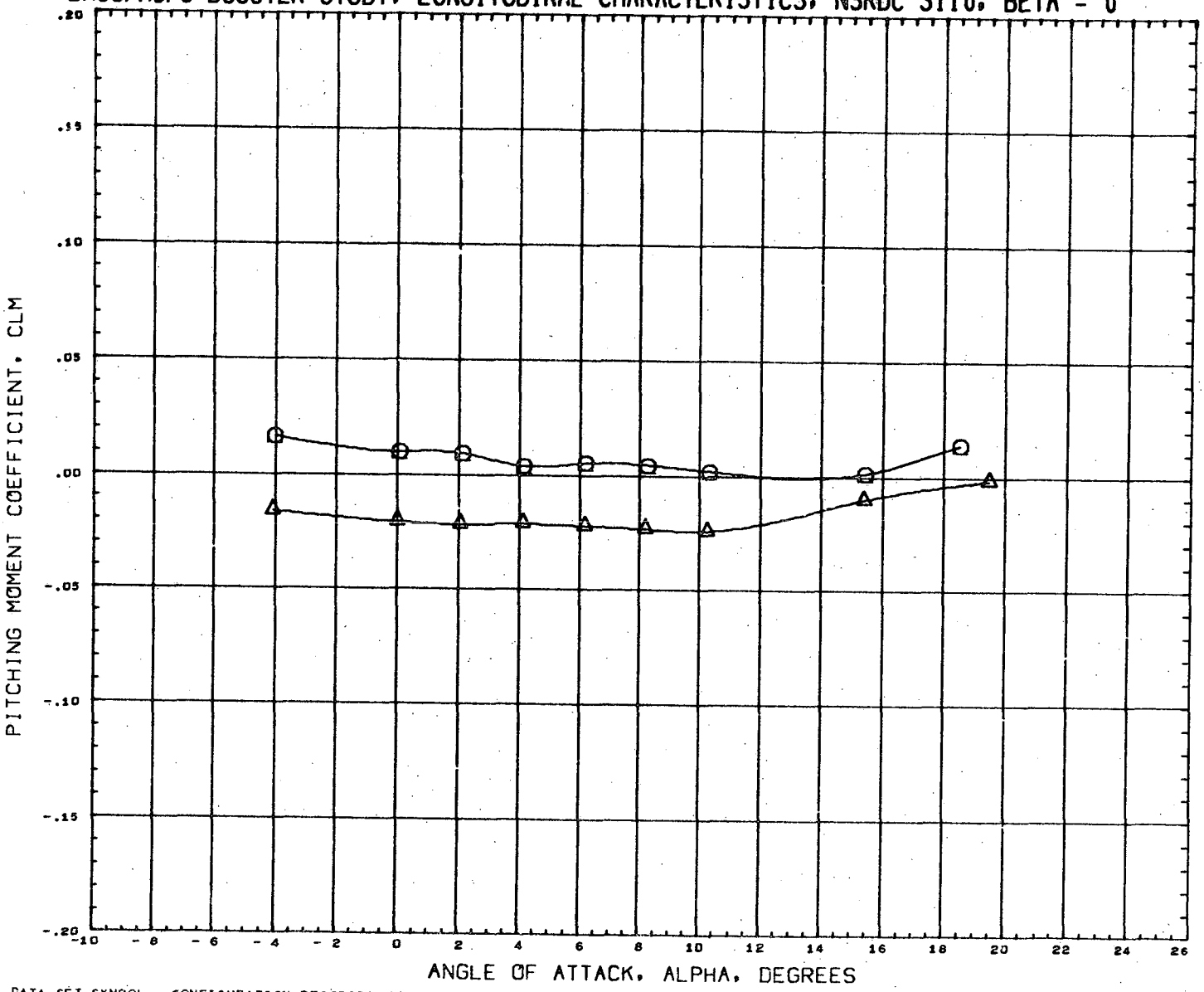



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2129) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 1.000 | 0.000 | 1.000 |
| (RN2161) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 1.000 | 3.000 | 1.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

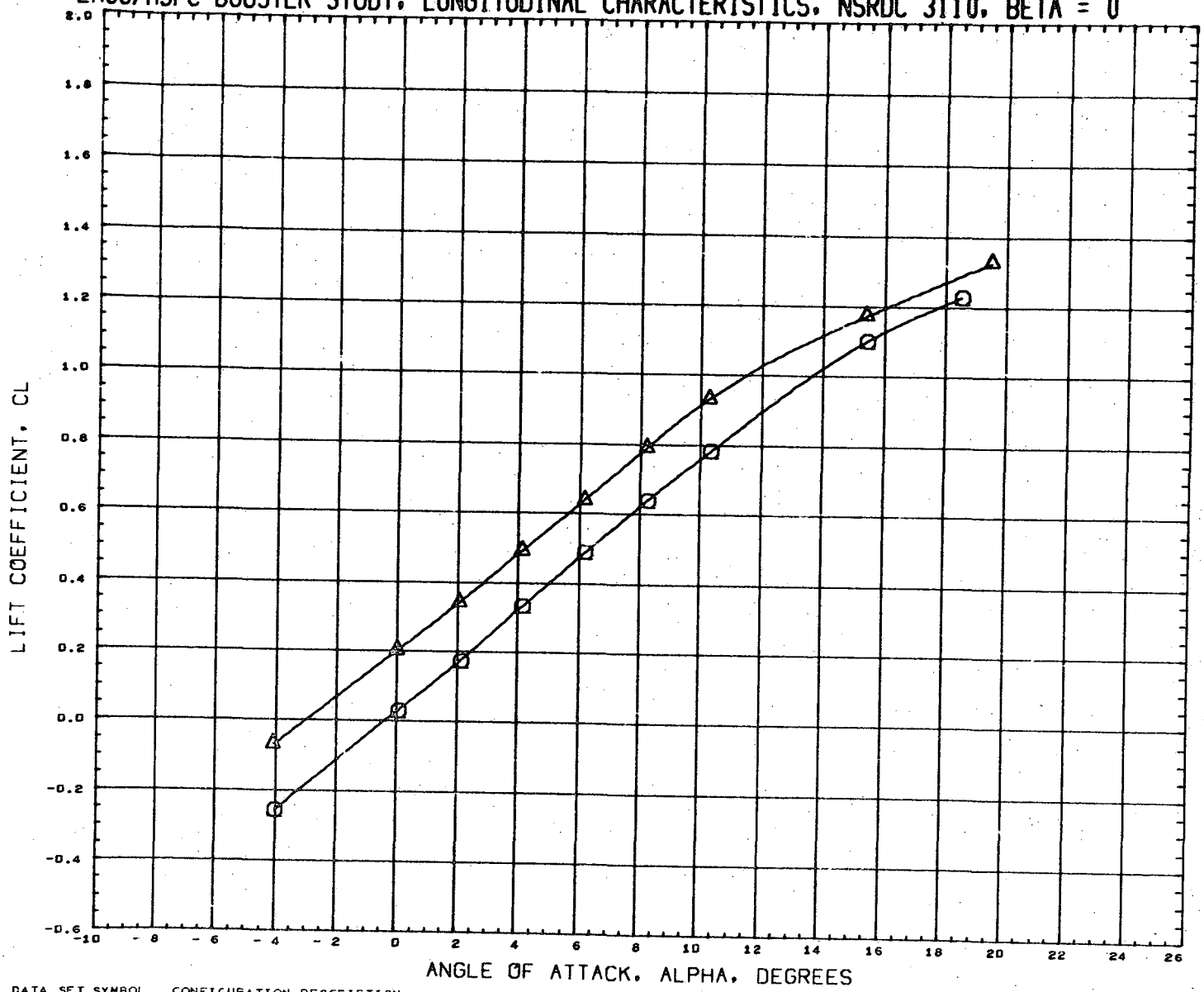



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2129) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 1.000 | 0.000 | 1.000 |
| (RN2161) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 1.000 | 3.000 | 1.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

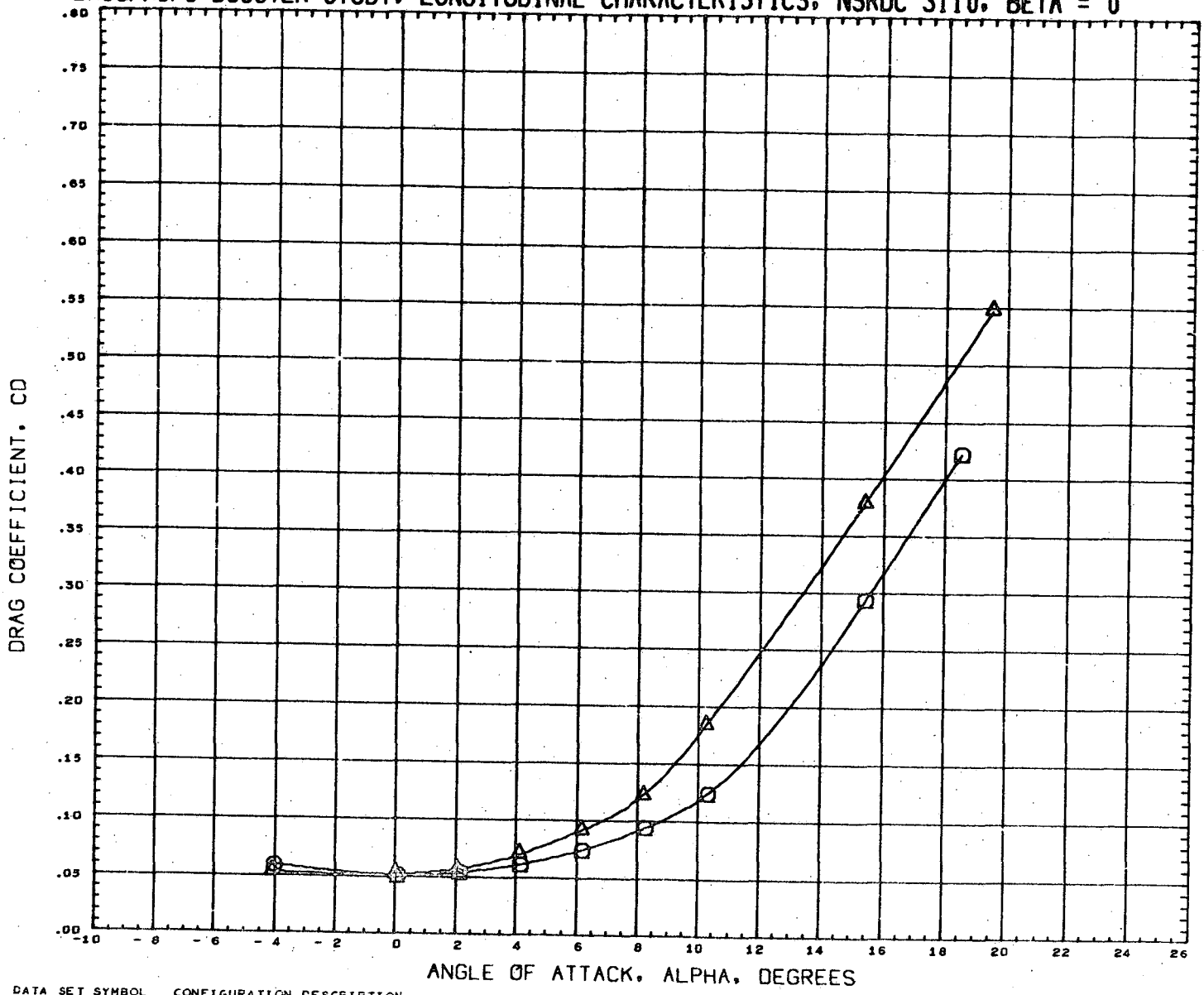



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2129) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 1.000 | 0.000 | 1.000 |
| (RN2161) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 1.000 | 3.000 | 1.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

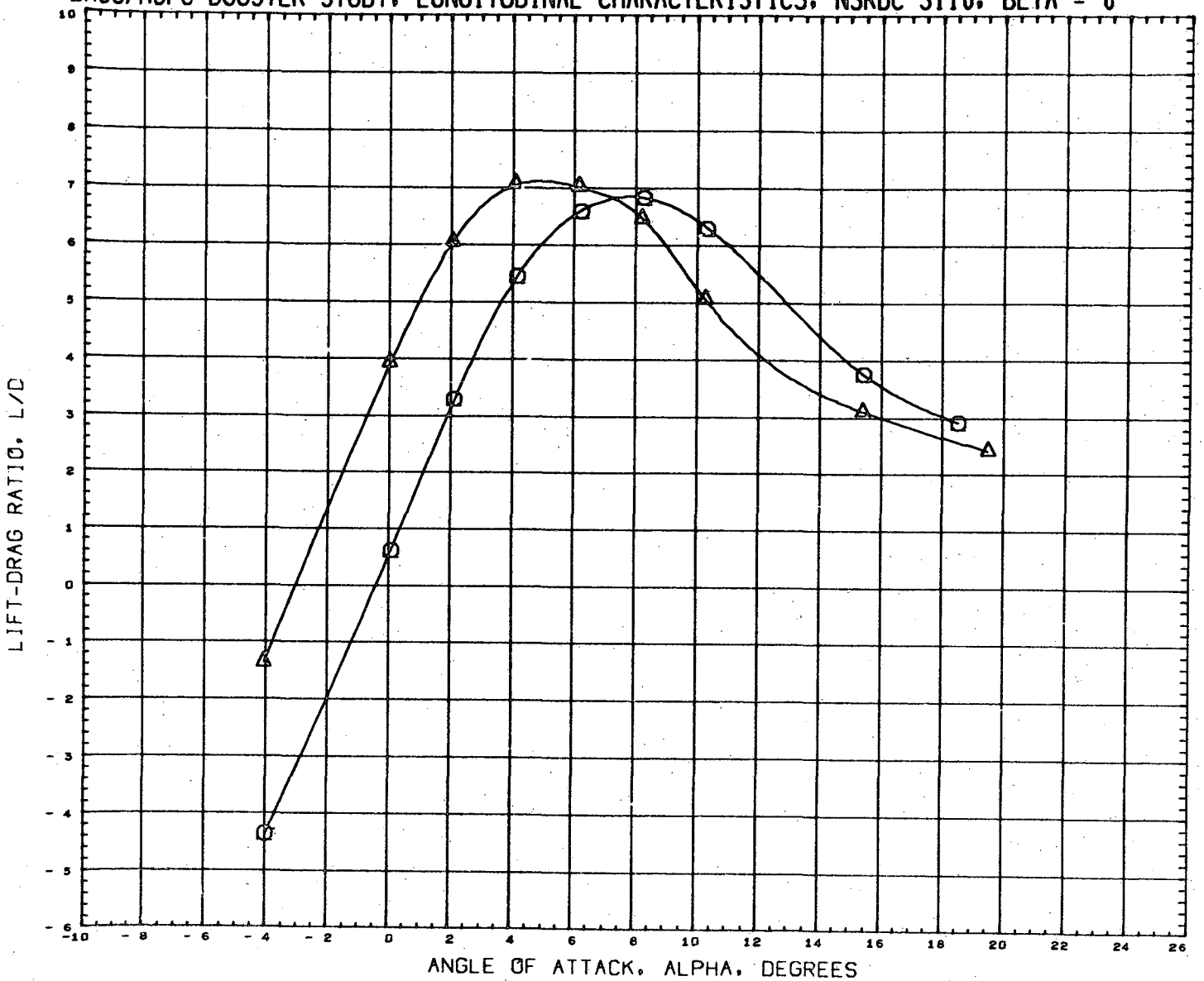



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2129) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 1.000 | 0.000 | 1.000 |
| (RN2161) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 1.000 | 3.000 | 1.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

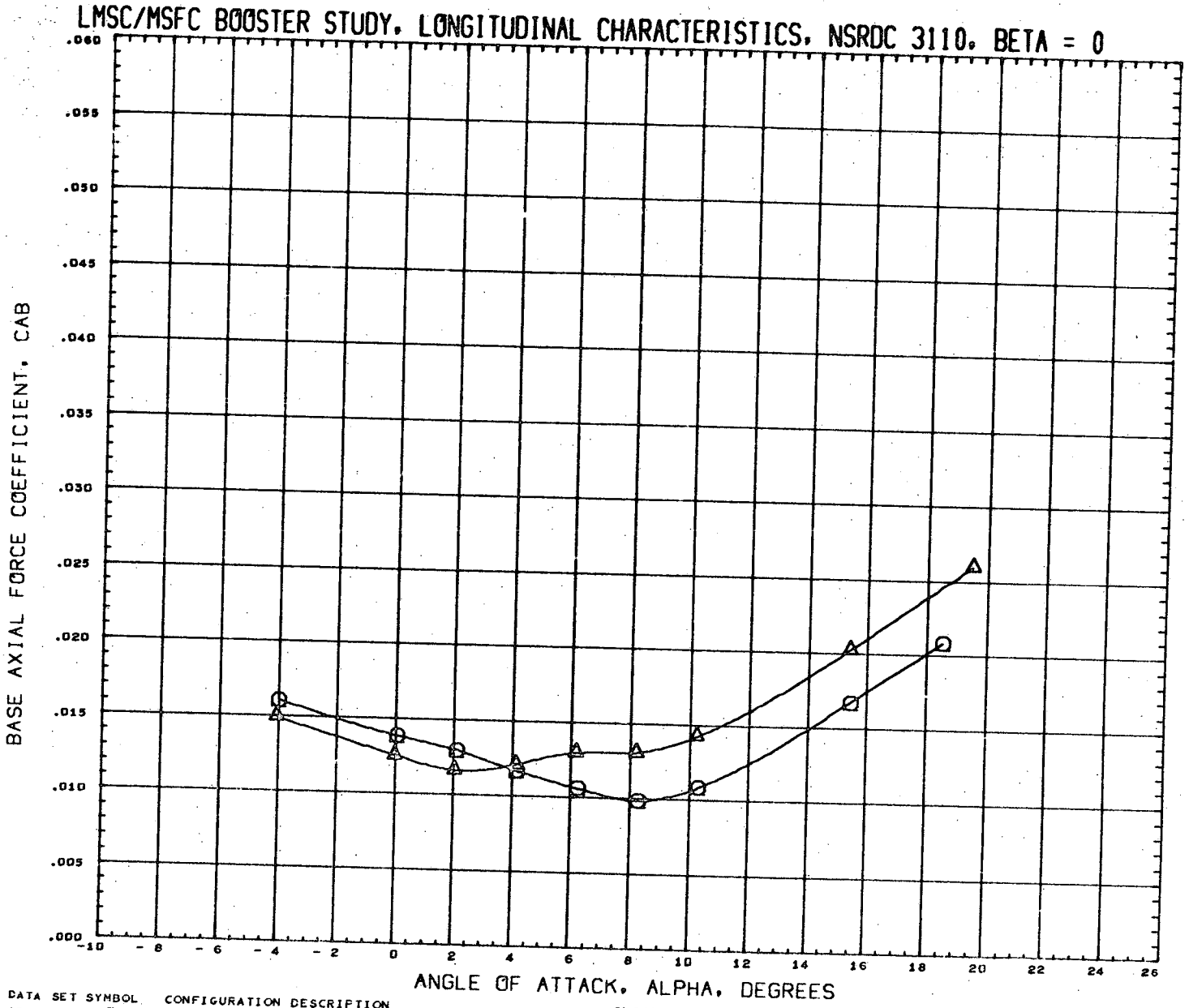
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2129) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 1.000 | 0.000 | 1.000 |
| (RN2161) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 1.000 | 3.000 | 1.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |



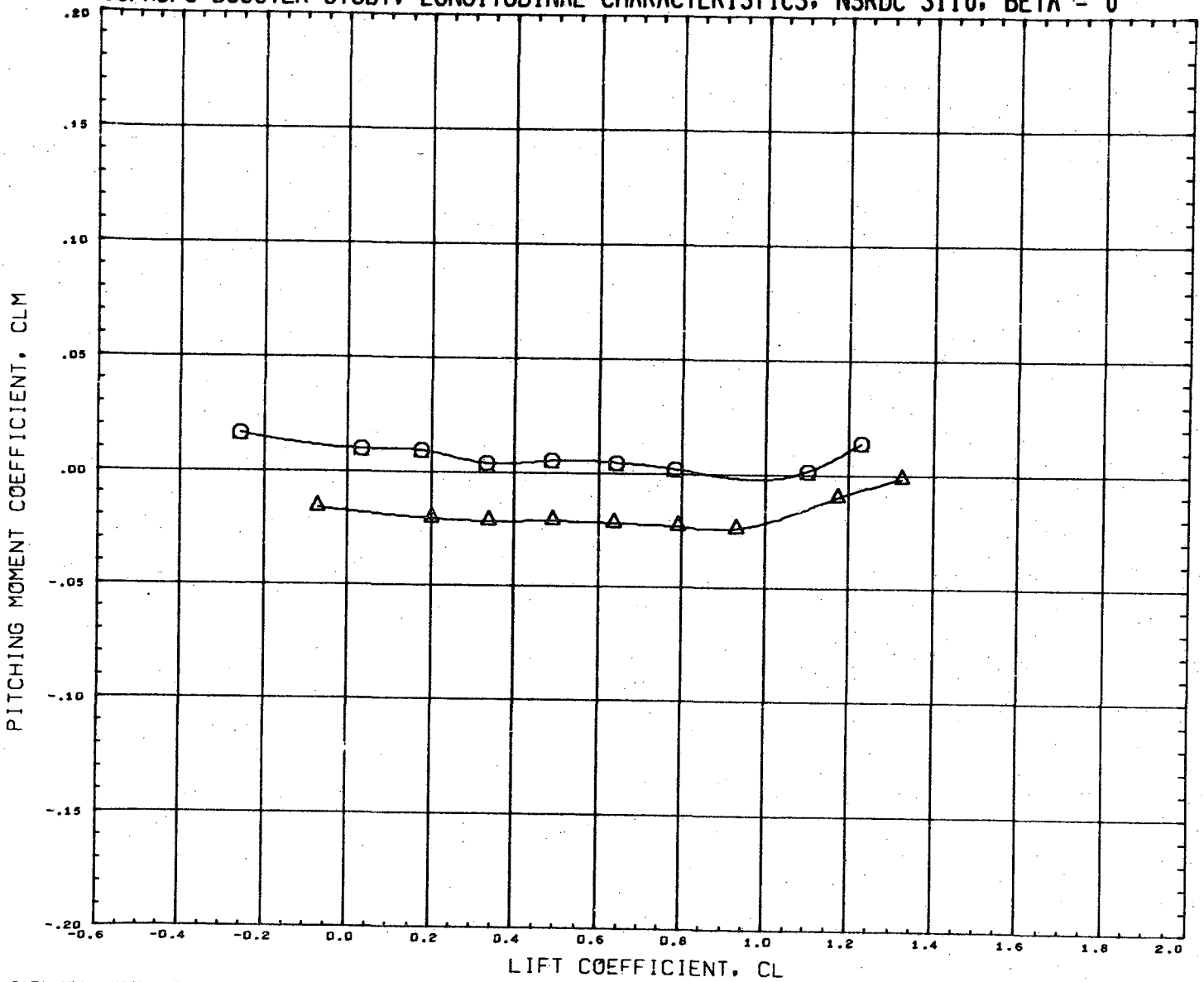

| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2129) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 1.000 | 0.000 | 1.000 |
| (RN2161) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 1.000 | 3.000 | 1.000 |

MACH 0.380

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

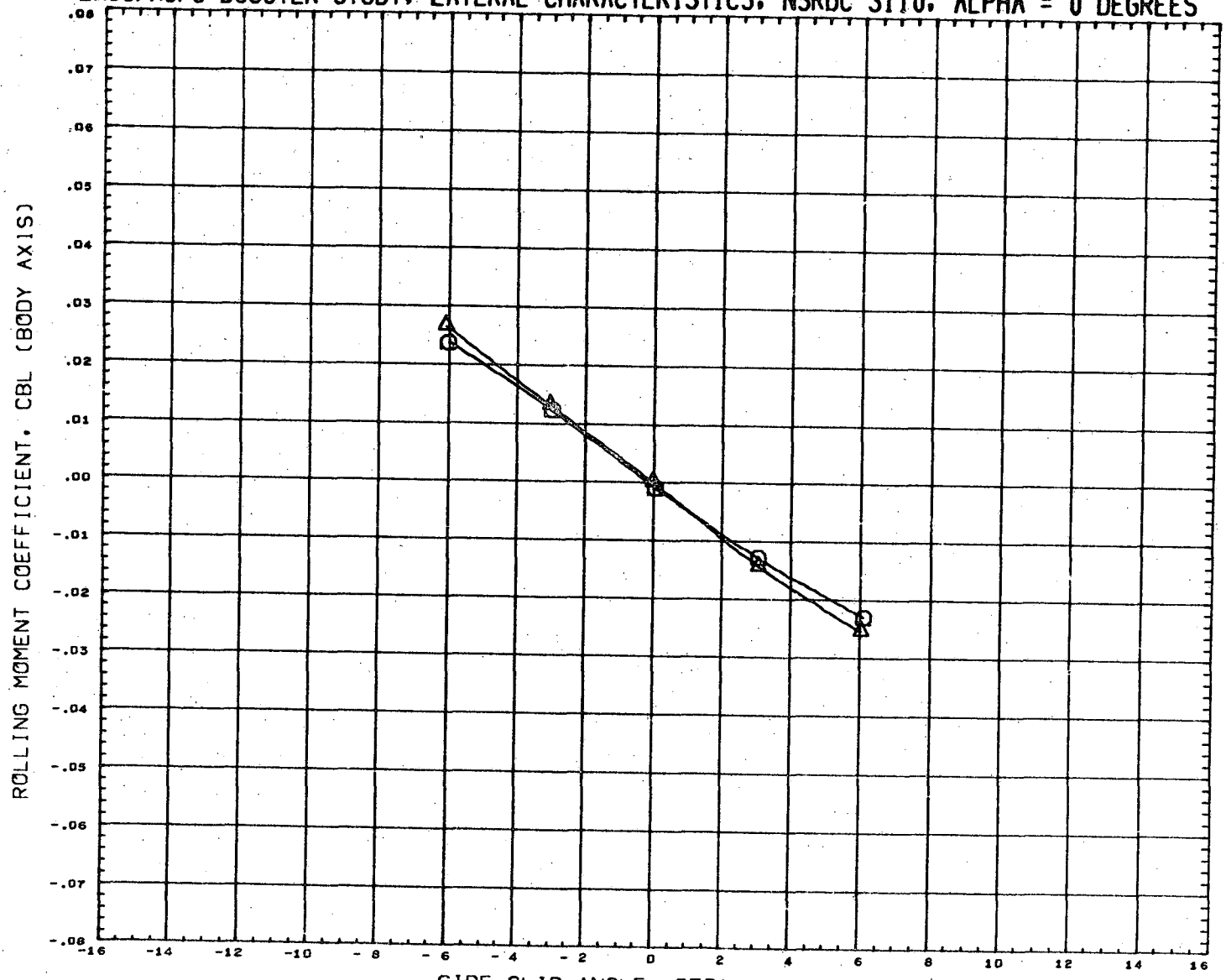



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDFOS | INCIDW | WNGFOS |
|---|---|---|---|---|---|---|
| (RN2129) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 1.000 | 0.000 | 1.000 |
| (RN2161) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 1.000 | 3.000 | 1.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

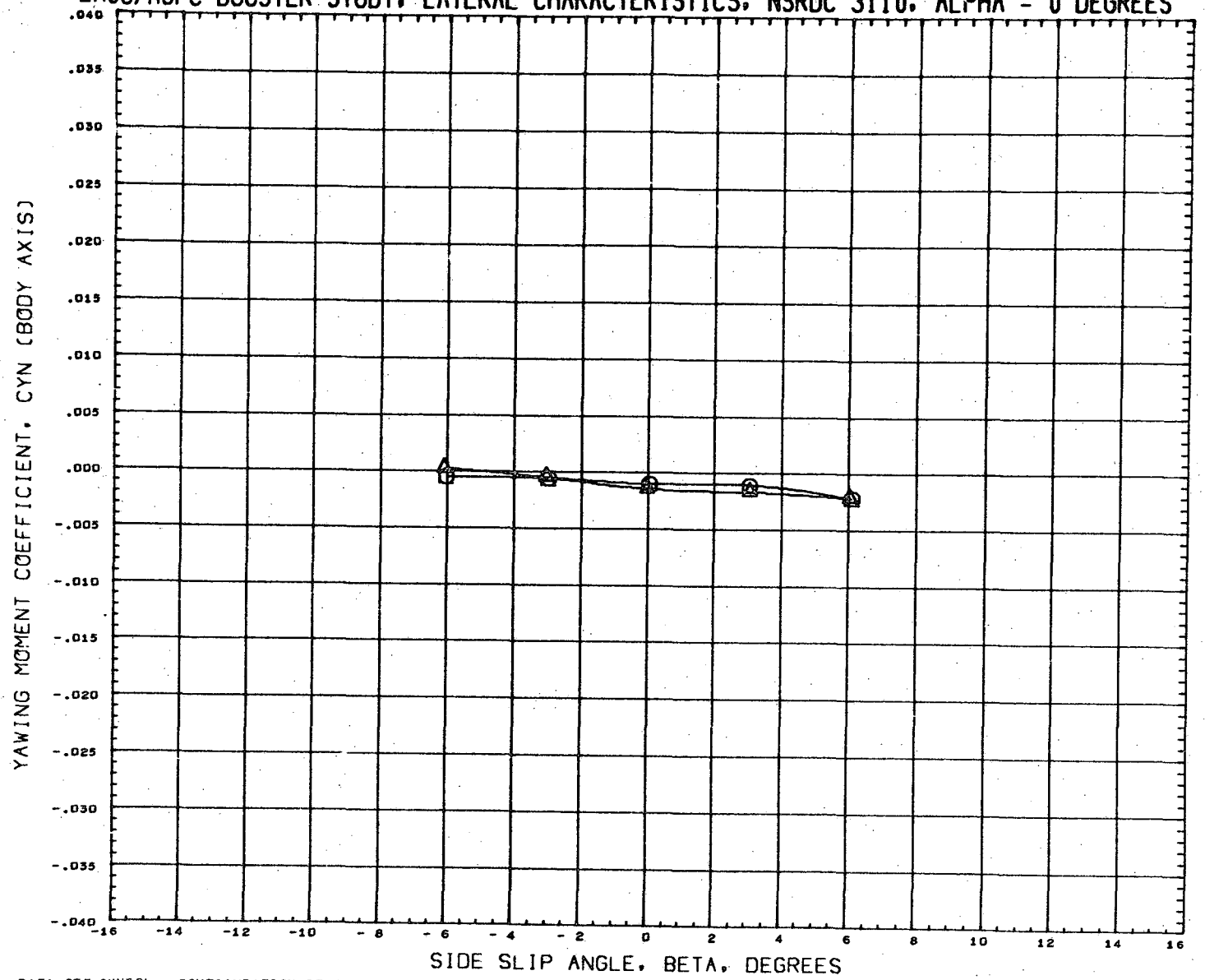



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2130) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 1.000 | 0.000 | 1.000 |
| (RN2162) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 1.000 | 3.000 | 1.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

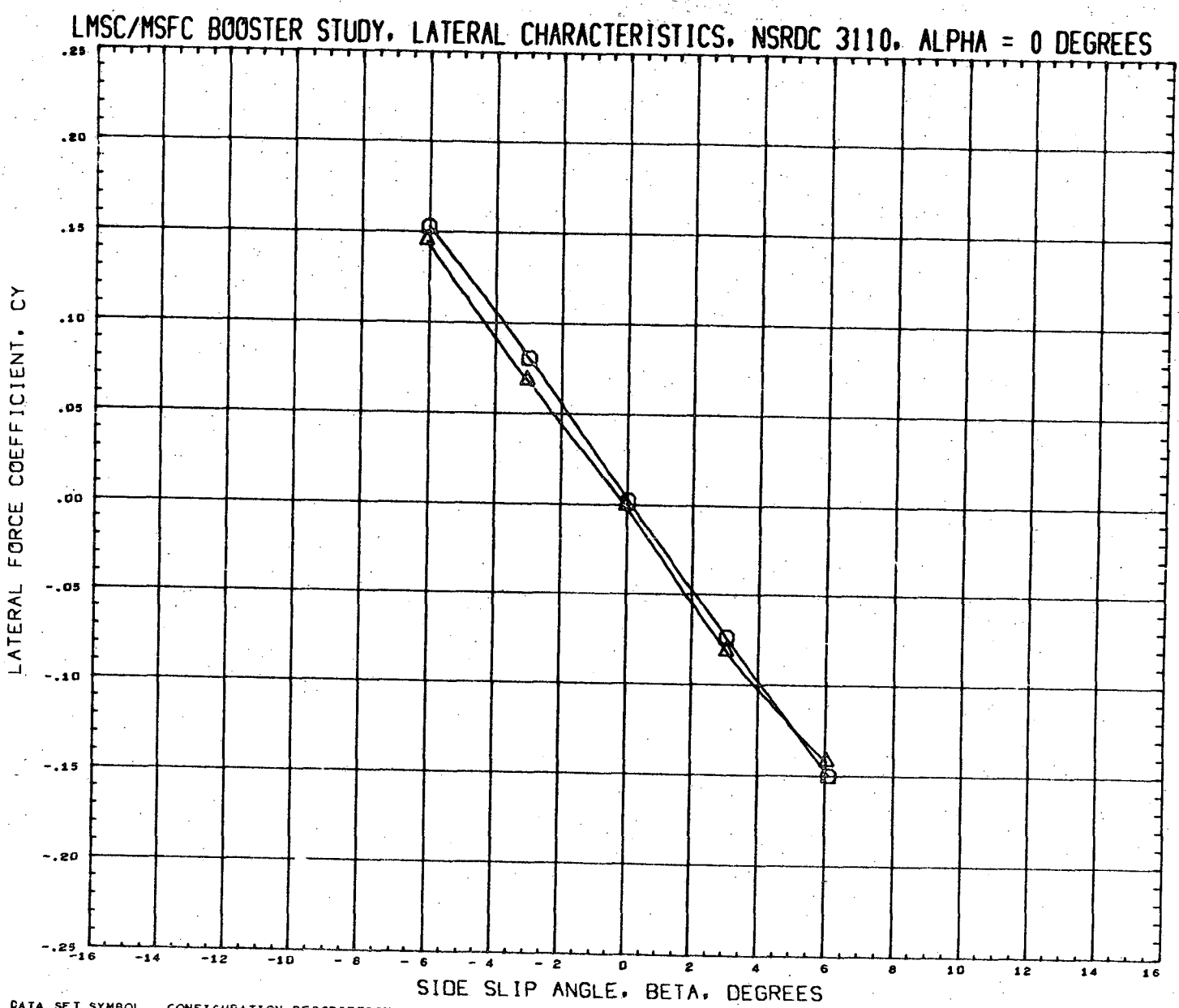
# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES




| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2130) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 1.000 | 0.000 | 1.000 |
| (RN2162) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 1.000 | 3.000 | 1.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

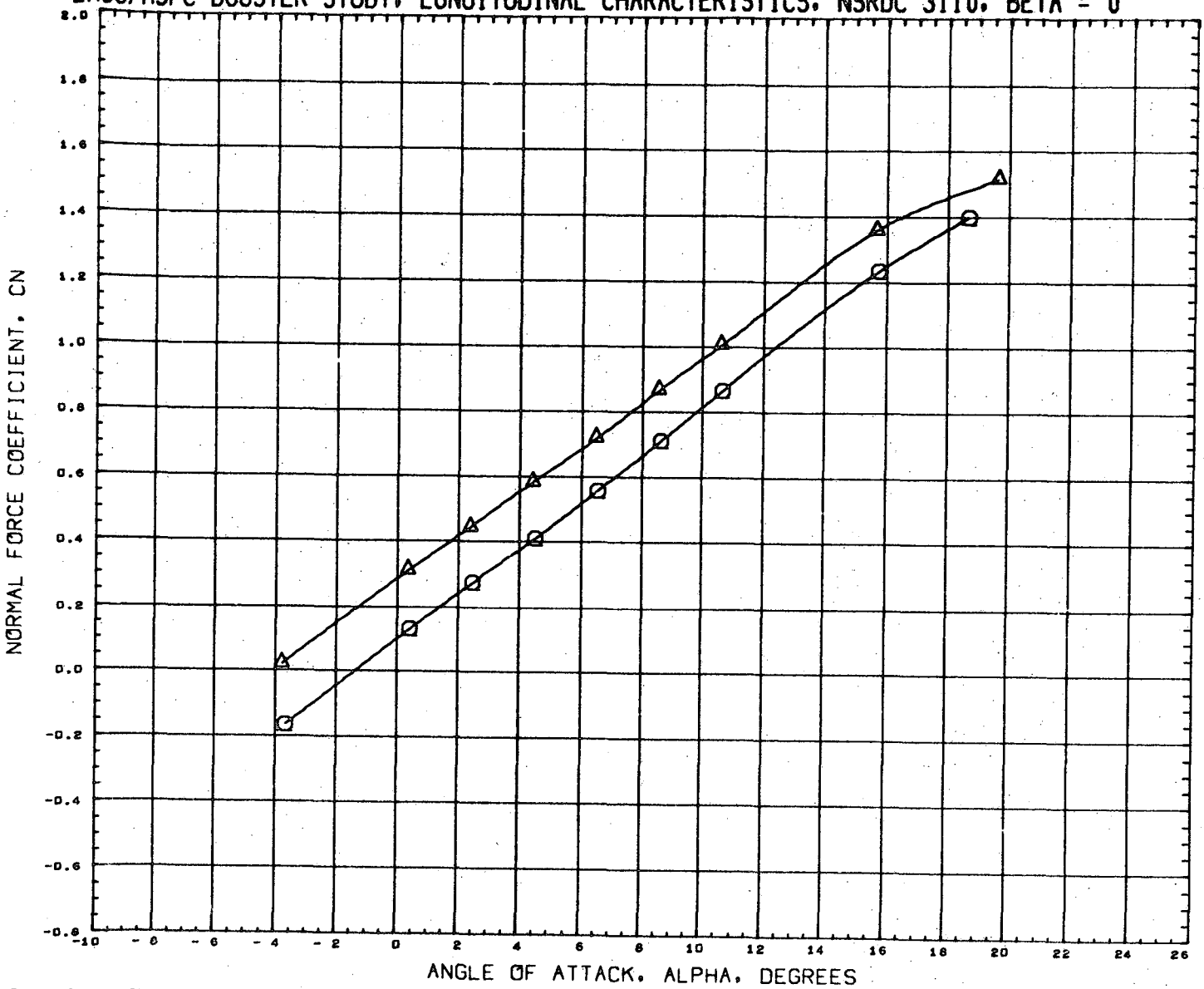



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN213D) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 1.000 | 0.000 | 1.000 |
| (RN2162) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 1.000 | 3.000 | 1.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRF | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

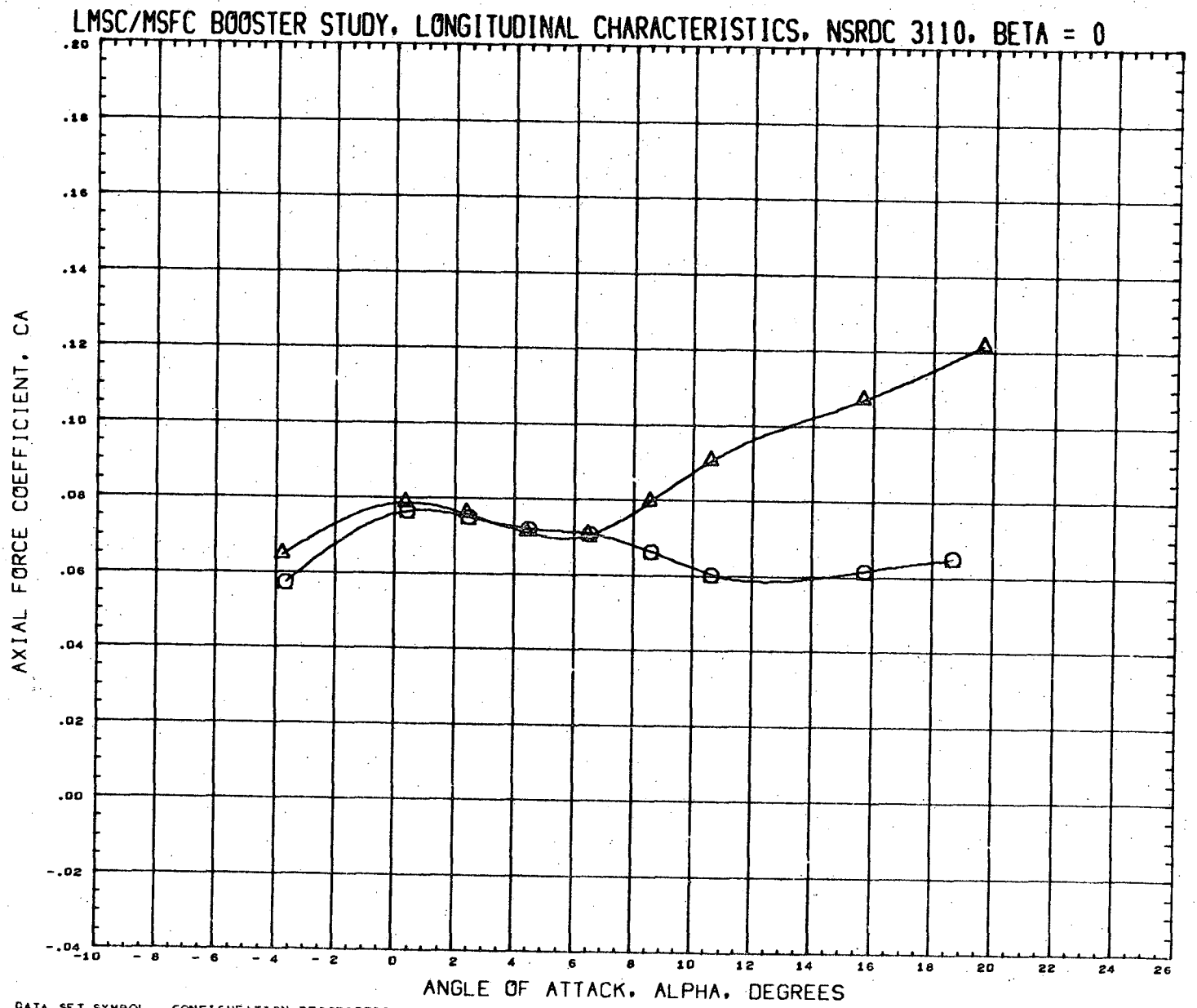
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2133) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 1.000 | 0.000 | 1.000 |
| (RN2165) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 1.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

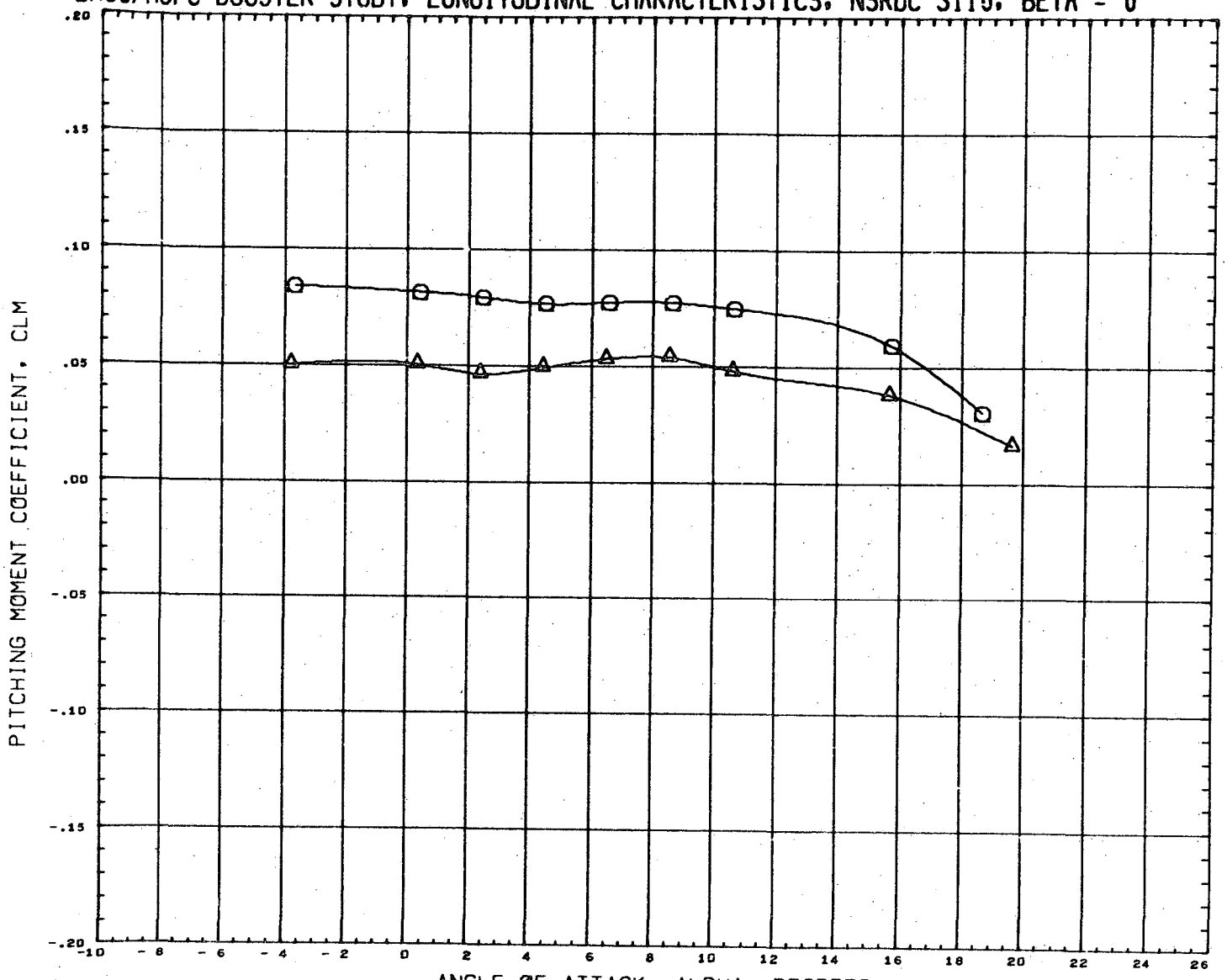



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2133) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 1.000 | 0.000 | 1.000 |
| (RN2165) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 1.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

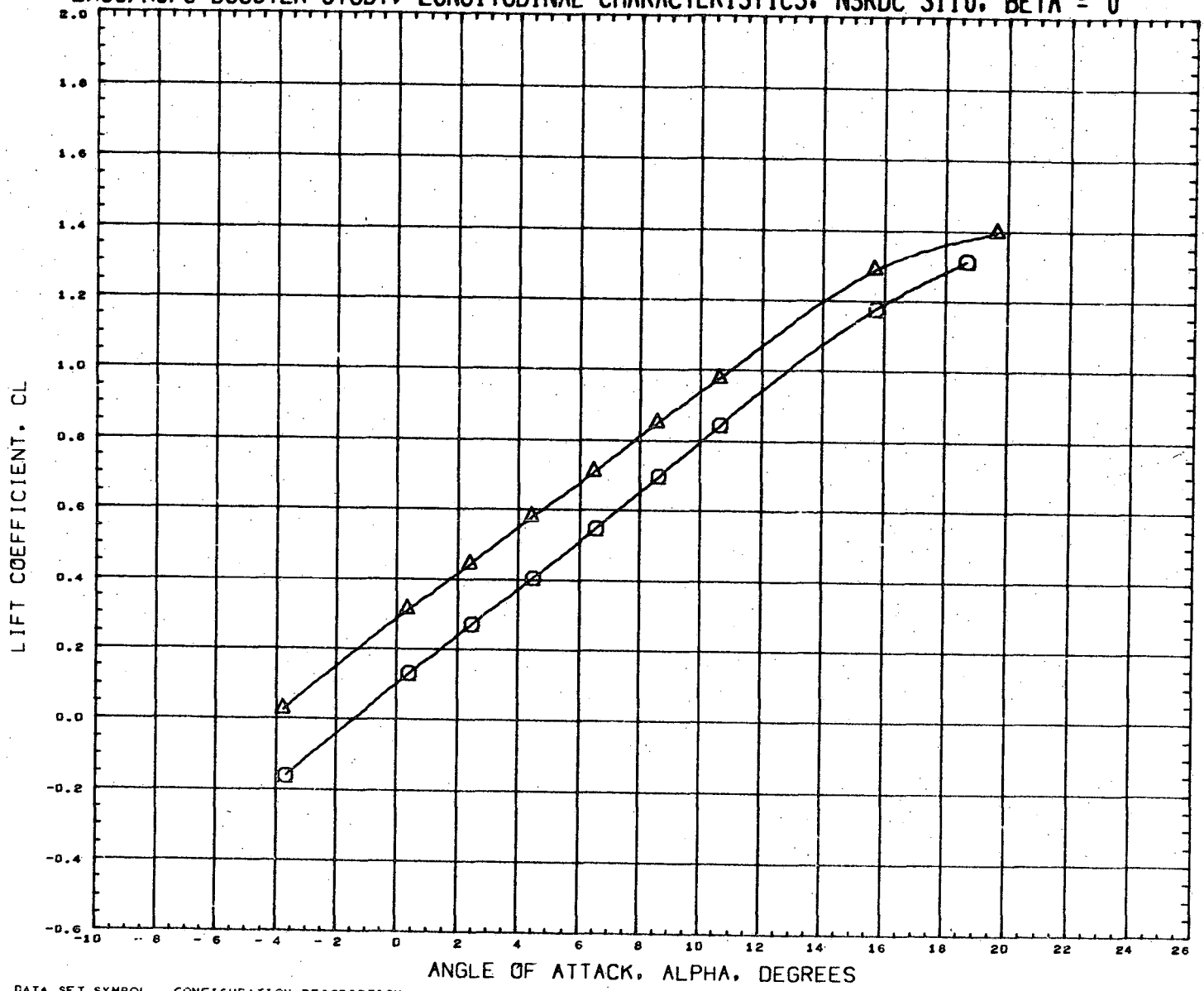



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2133) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 1.000 | 0.000 | 1.000 |
| (RN2165) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 1.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

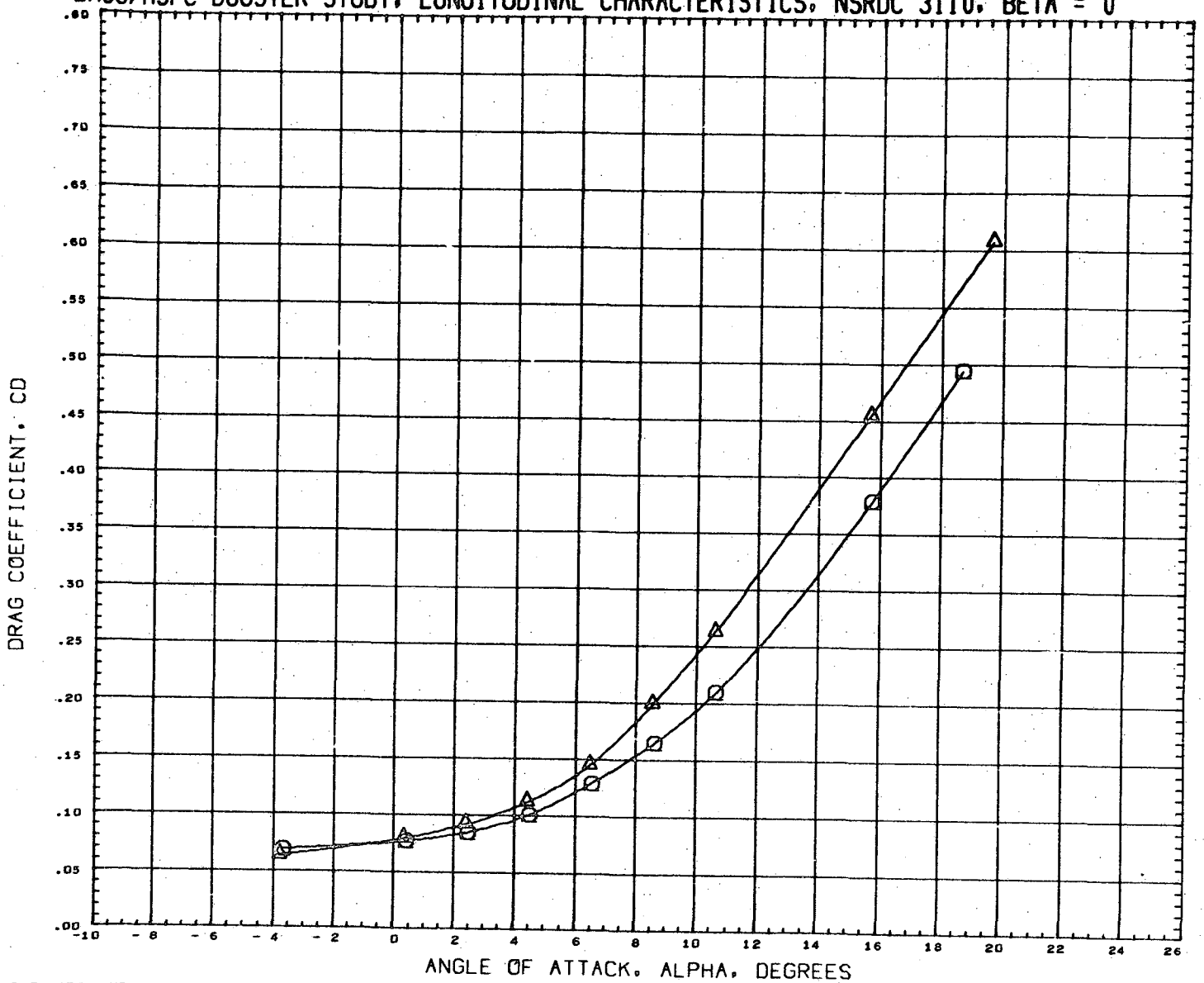



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2133) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 1.000 | 0.000 | 1.000 |
| (RN2165) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 1.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

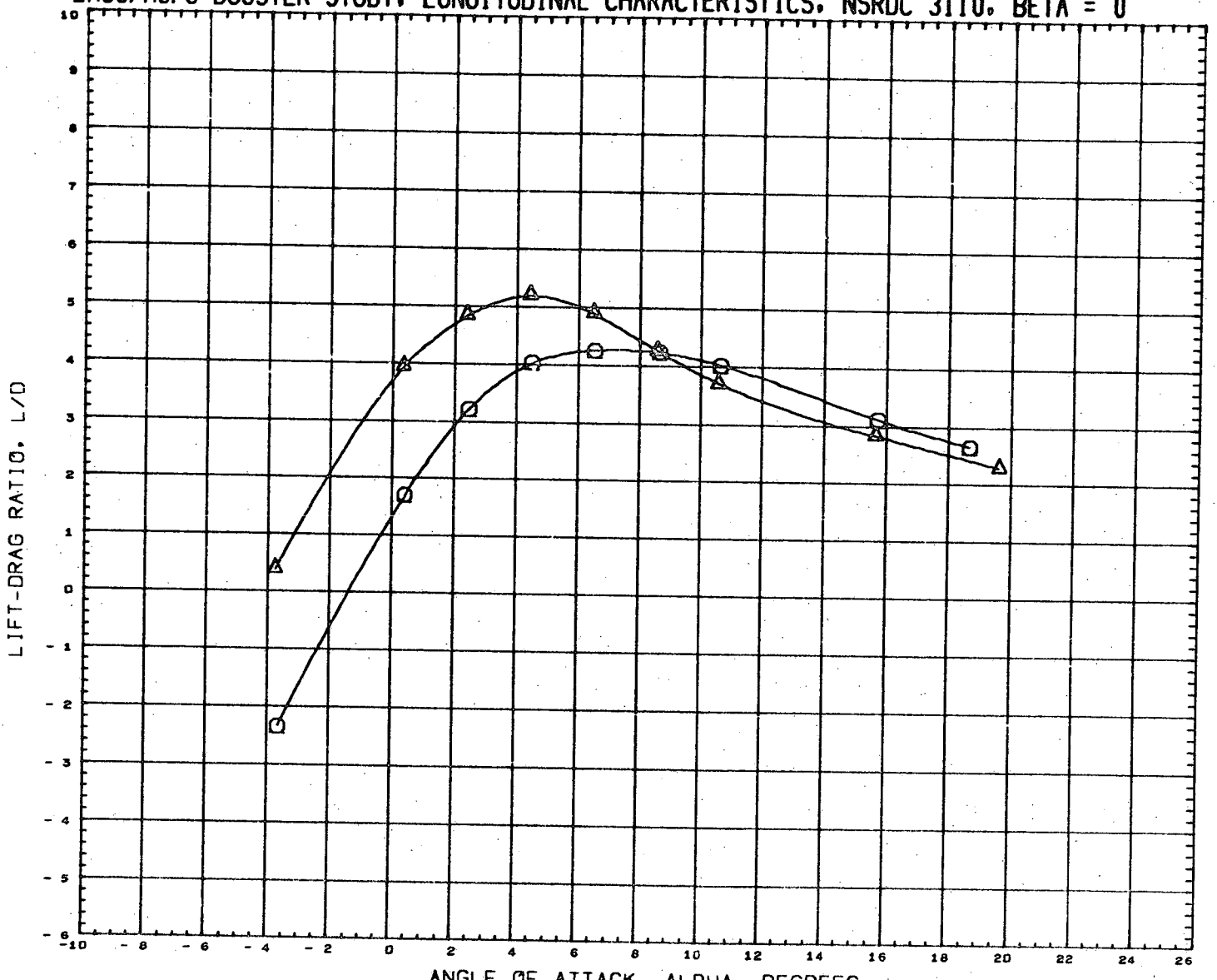



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2133) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 1.000 | 0.000 | 1.000 |
| (RN2165) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 1.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

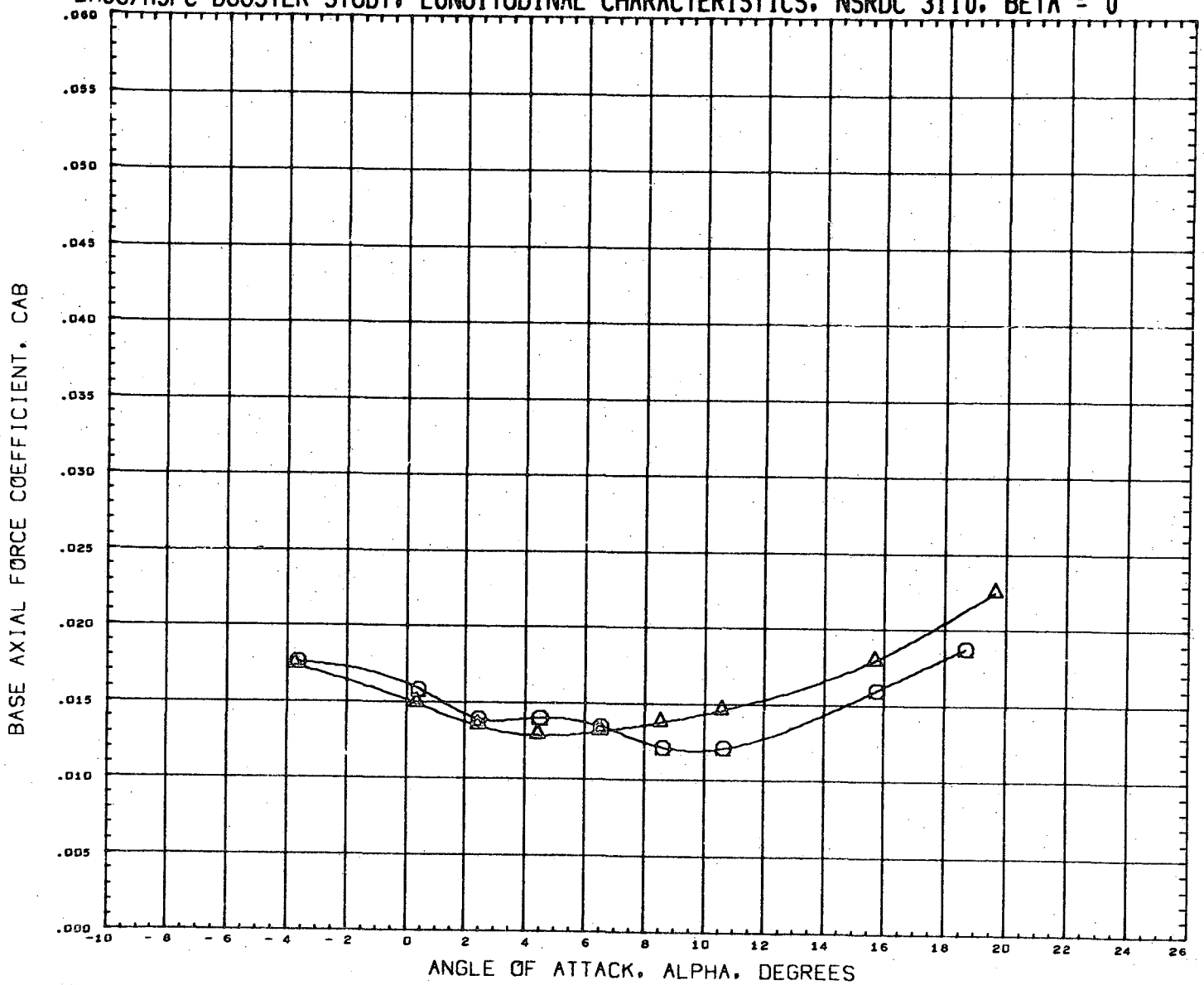



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2133) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 1.000 | 0.000 | 1.000 |
| (RN2165) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 1.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

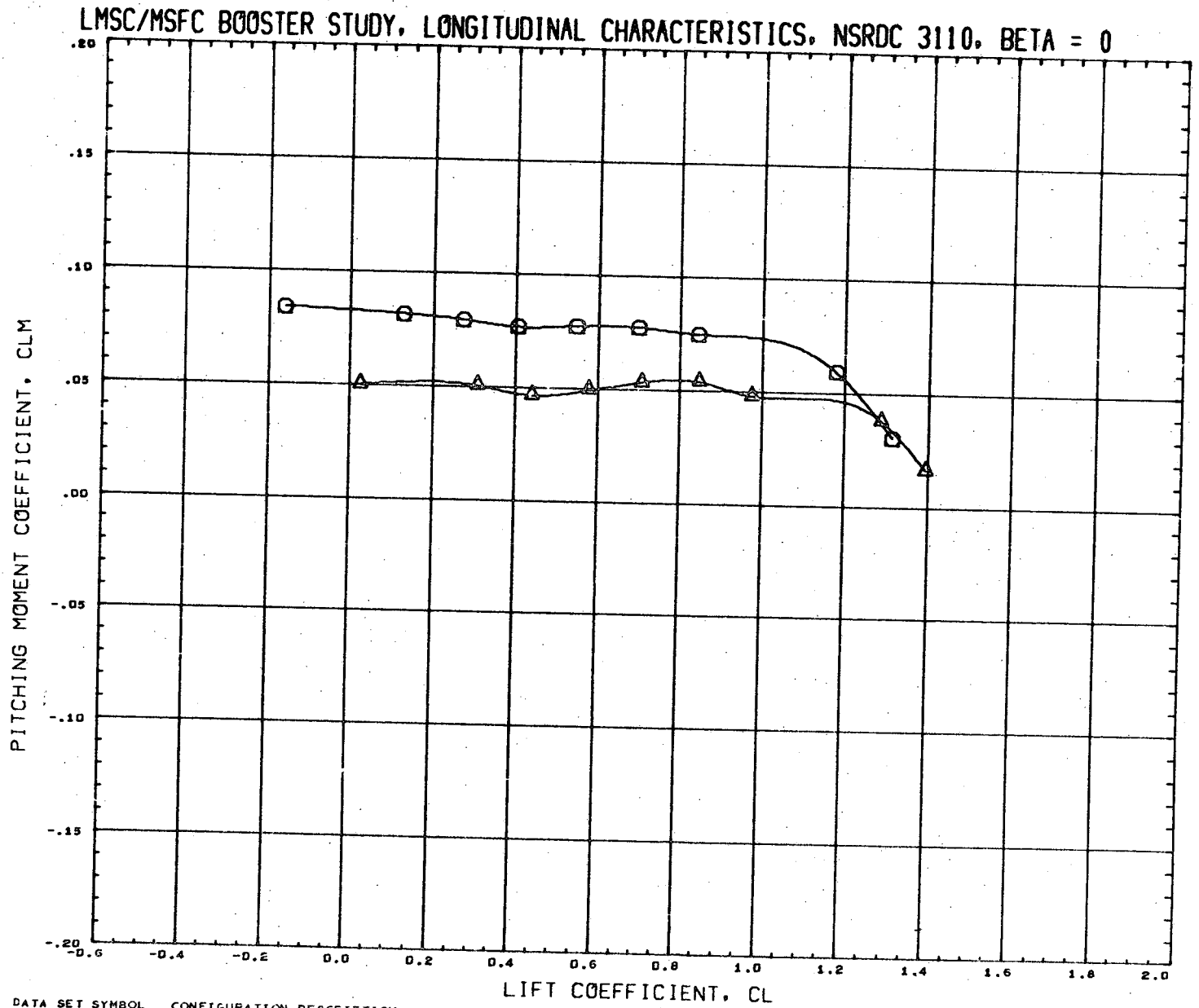
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDFOS | INCIDW | WNGFOS |
|---|---|---|---|---|---|
| (RN2133) ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 1.000 | 0.000 | 1.000 |
| (RN2165) △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 1.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1'.355D | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

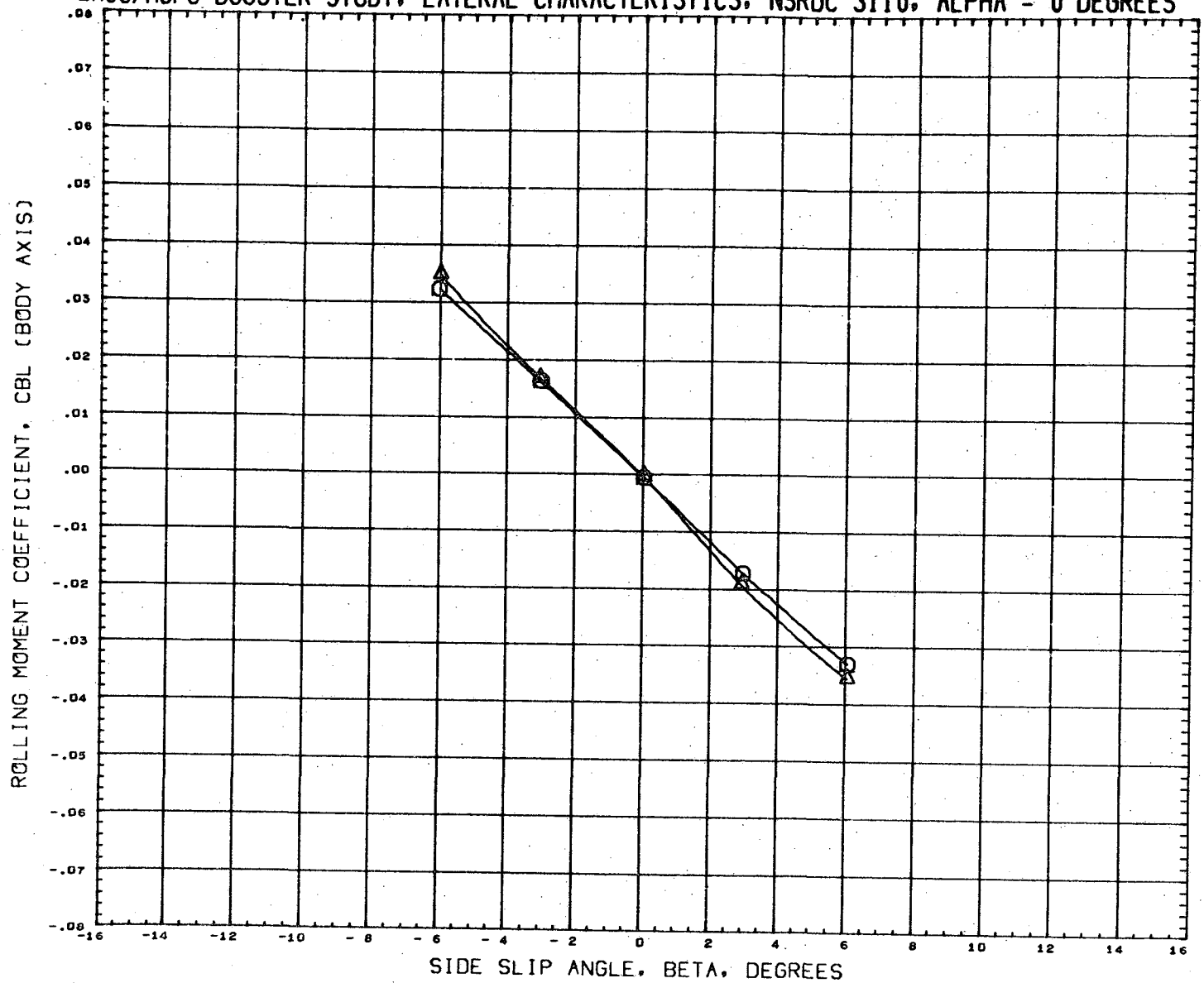



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2133) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 1.000 | 0.000 | 1.000 |
| (RN2165) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 1.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

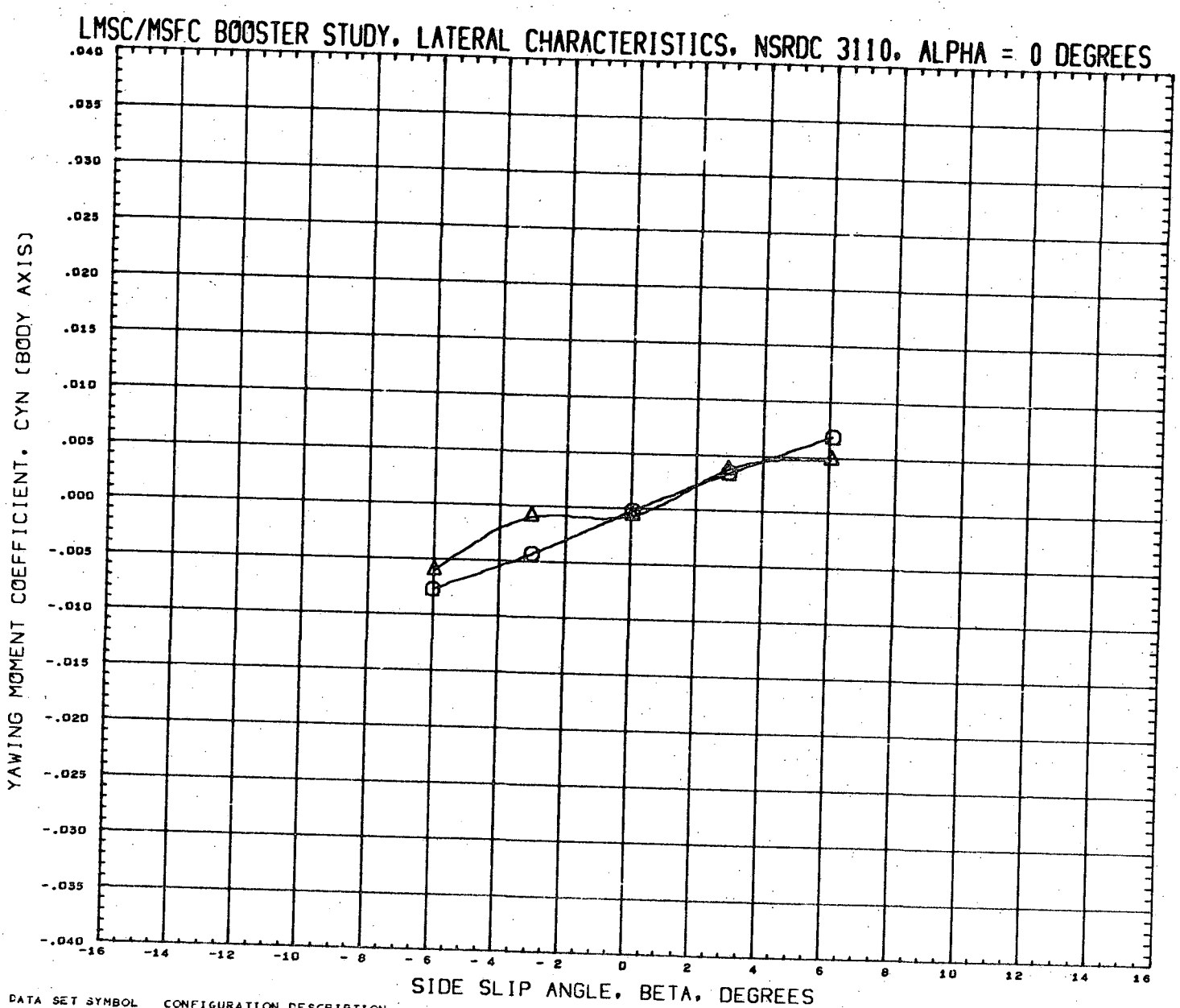
# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES




| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2134) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 1.000 | 0.000 | 1.000 |
| (RN2166) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 1.000 | 3.000 | 1.000 |

MACH 0.379

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

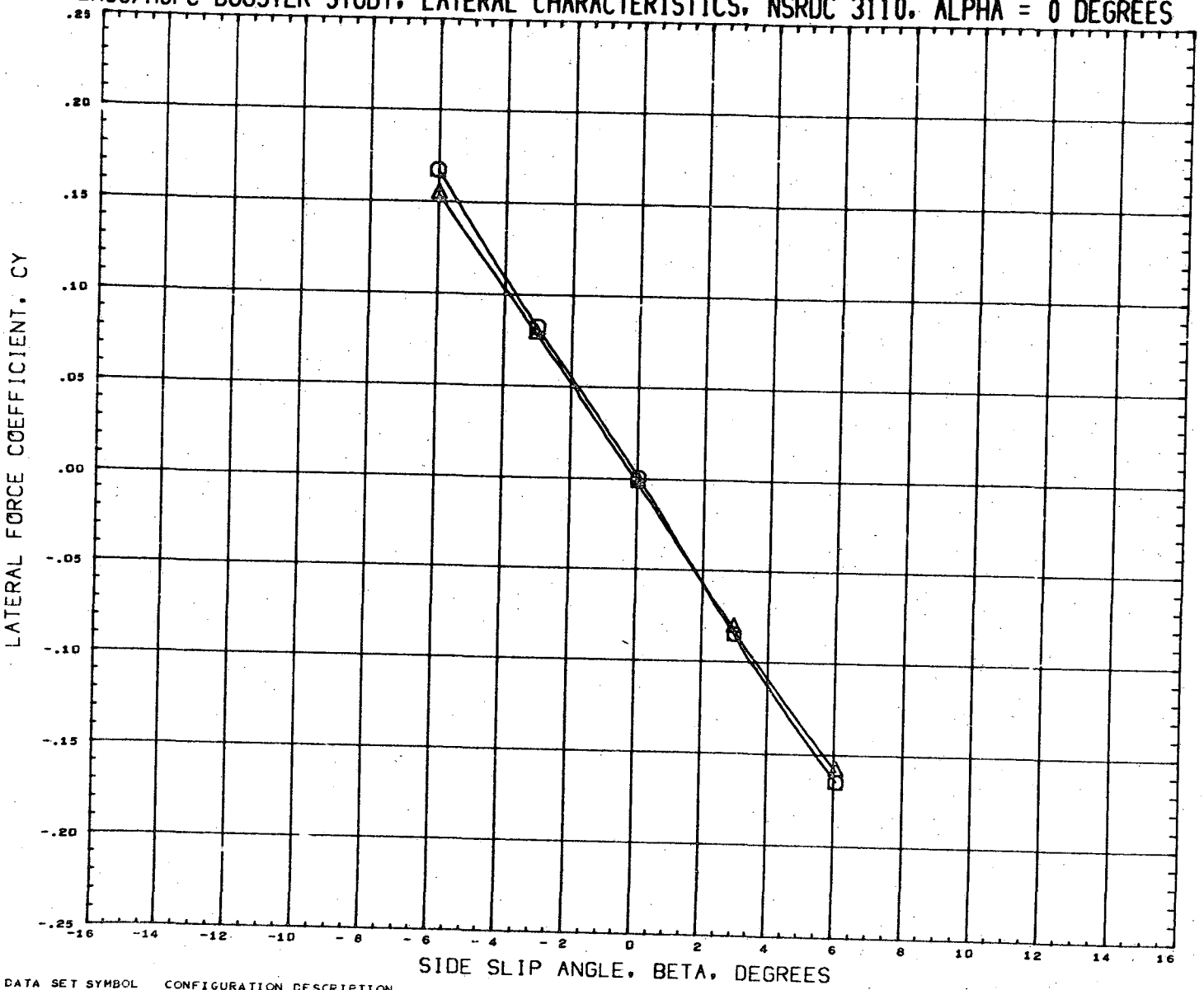



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2134) ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 1.000 | 0.000 | 1.000 |
| (RN2166) △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 1.000 | 3.000 | 1.000 |

MACH 0.379

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

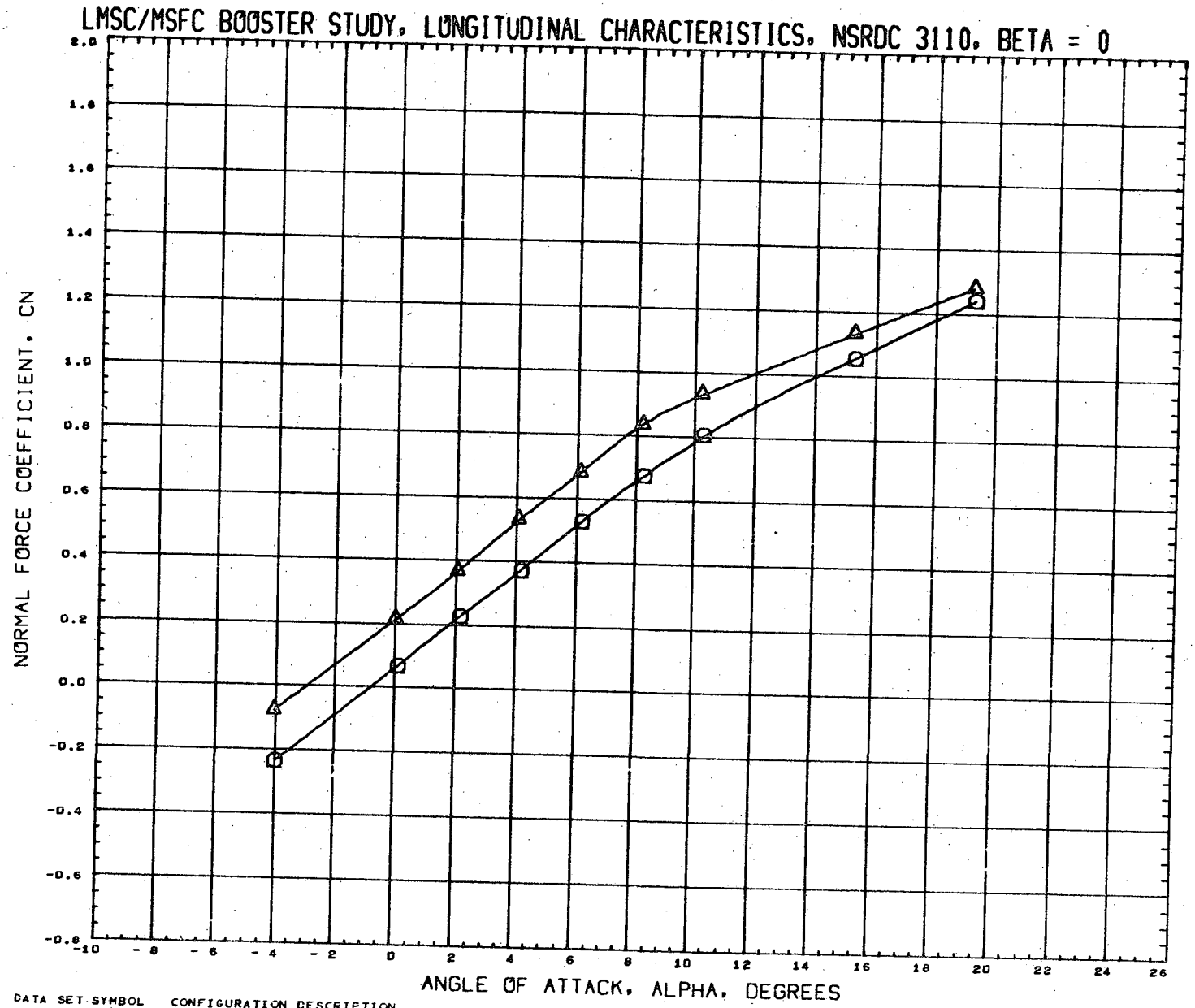
# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES




| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2134) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 1.000 | 0.000 | 1.000 |
| (RN2166) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 1.000 | 3.000 | 1.000 |

MACH 0.379

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

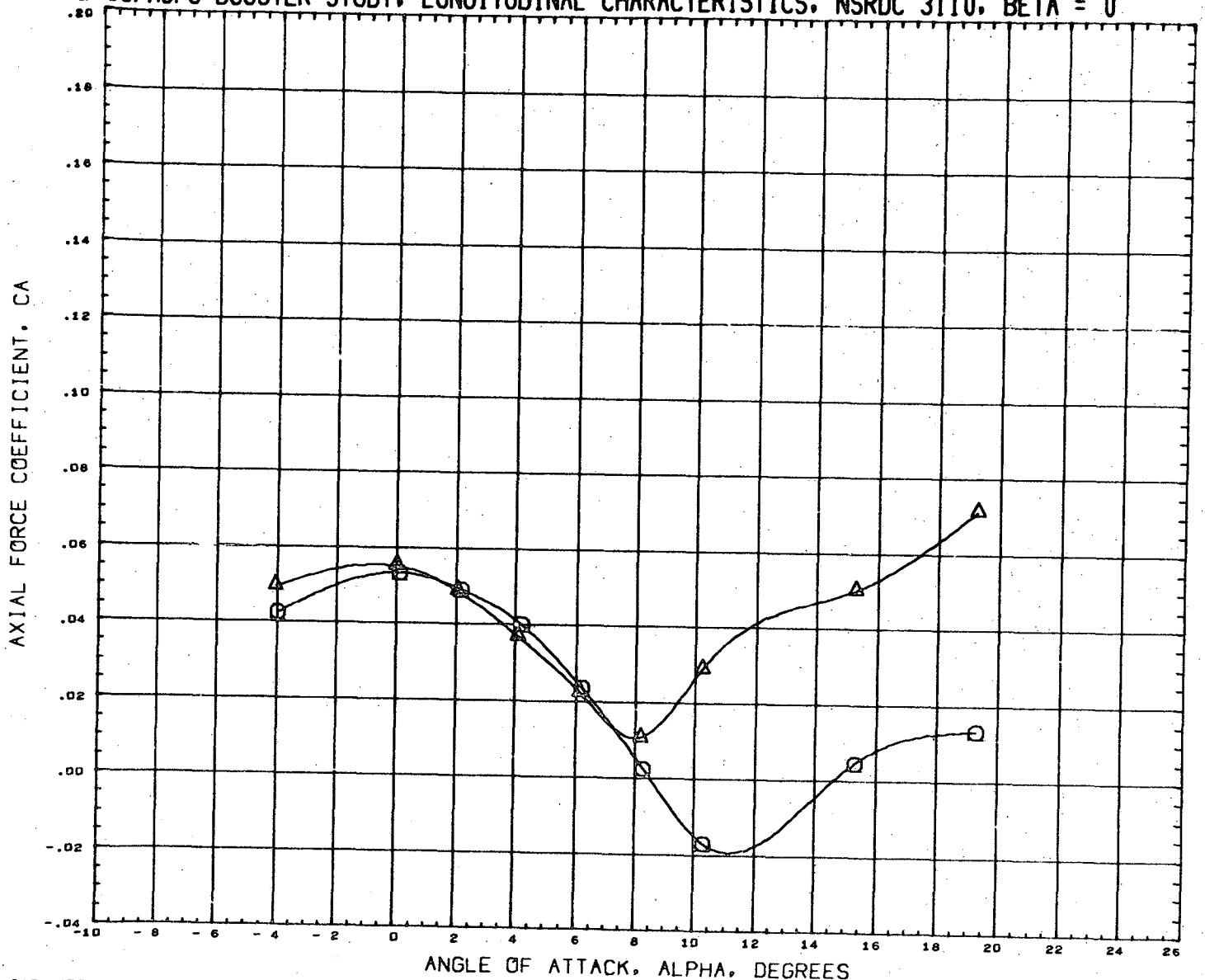



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2137) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 2.000 | 0.000 | 1.000 |
| (RN2169) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 2.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

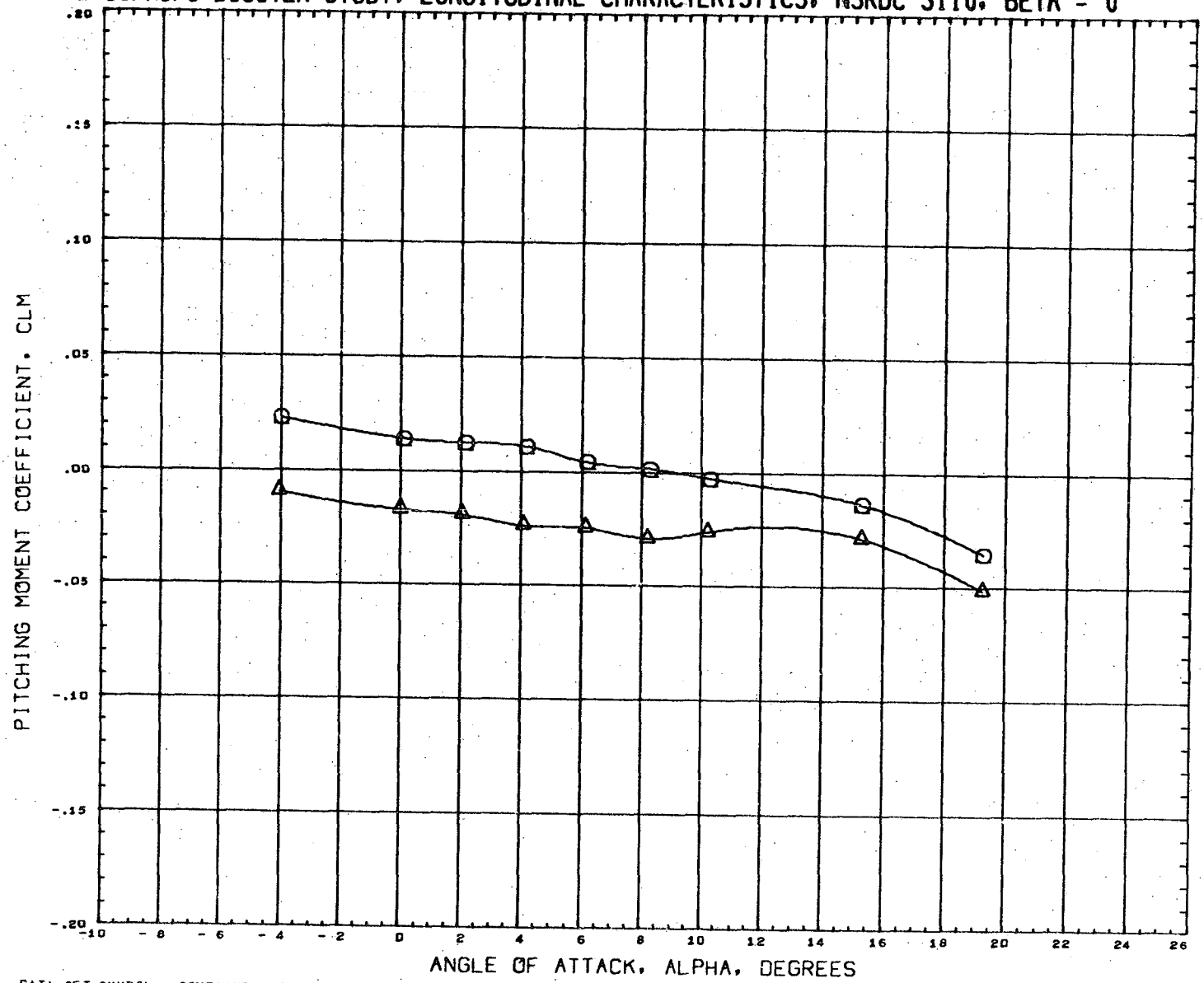



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2137) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 2.000 | 0.000 | 1.000 |
| (RN2169) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 2.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

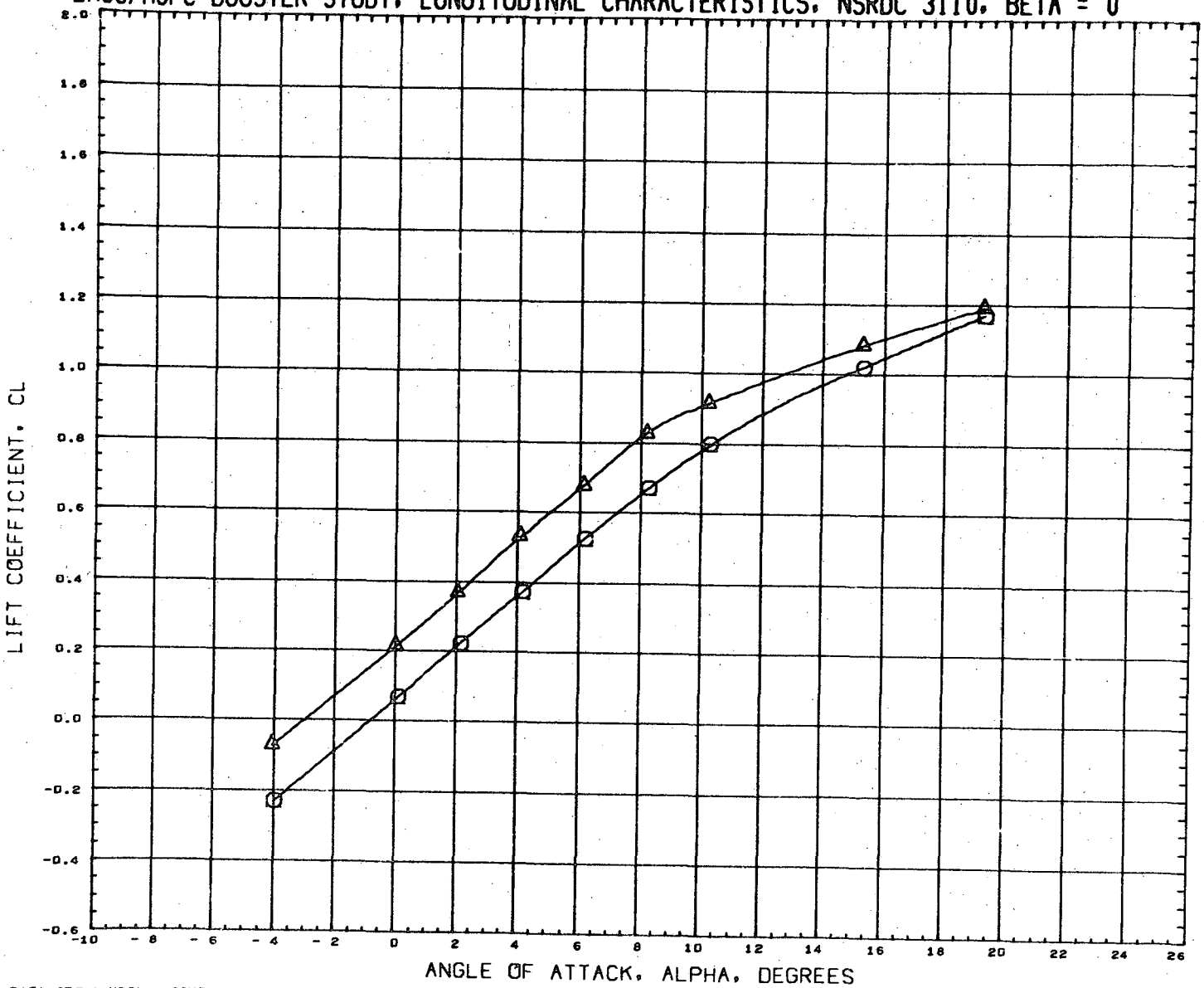



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2137) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 2.000 | 0.000 | 1.000 |
| (RN2169) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 2.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

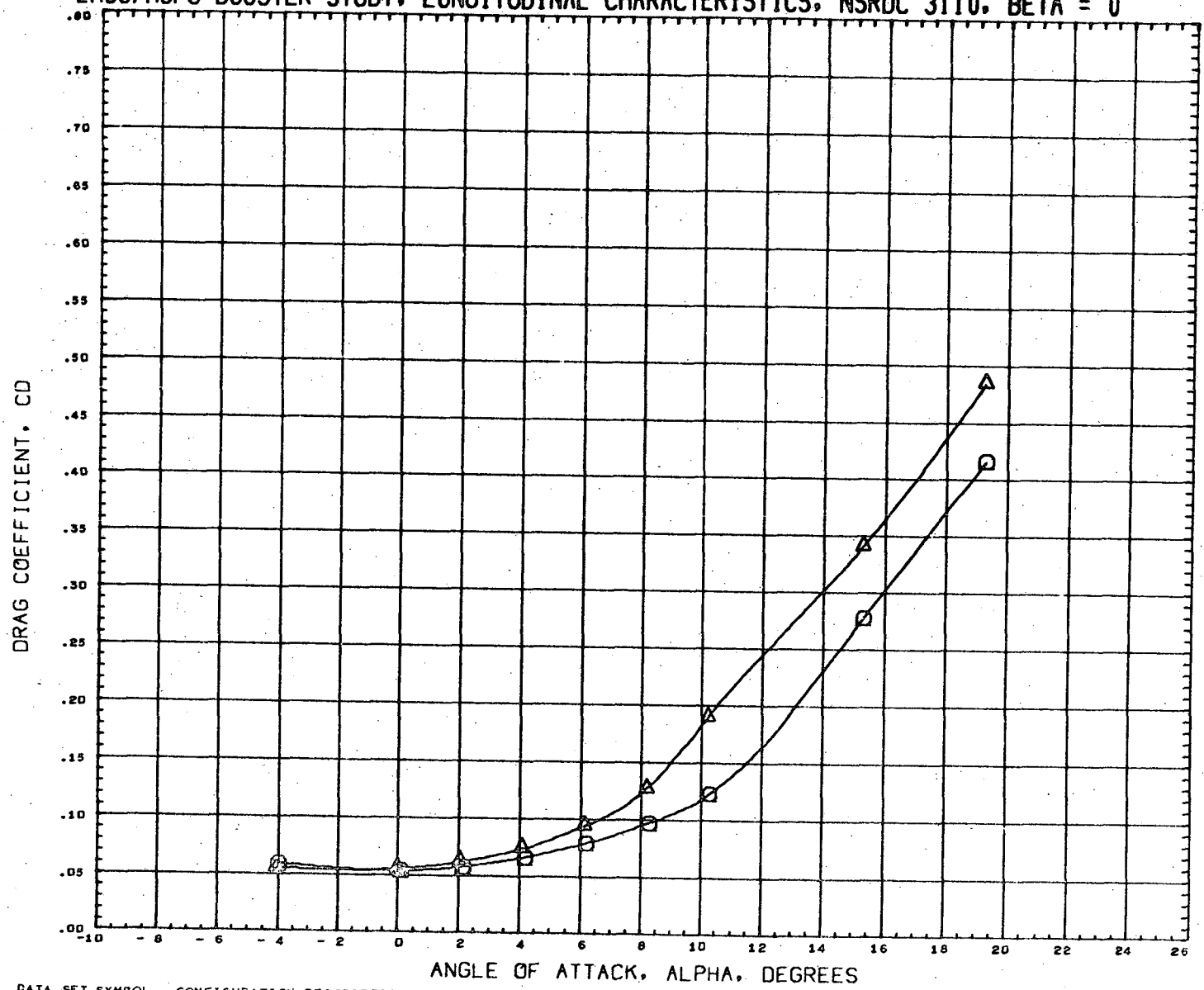



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2137) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 2.000 | 0.000 | 1.000 |
| (RN2169) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 2.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY. LONGITUDINAL CHARACTERISTICS. NSRDC 3110. BETA = 0

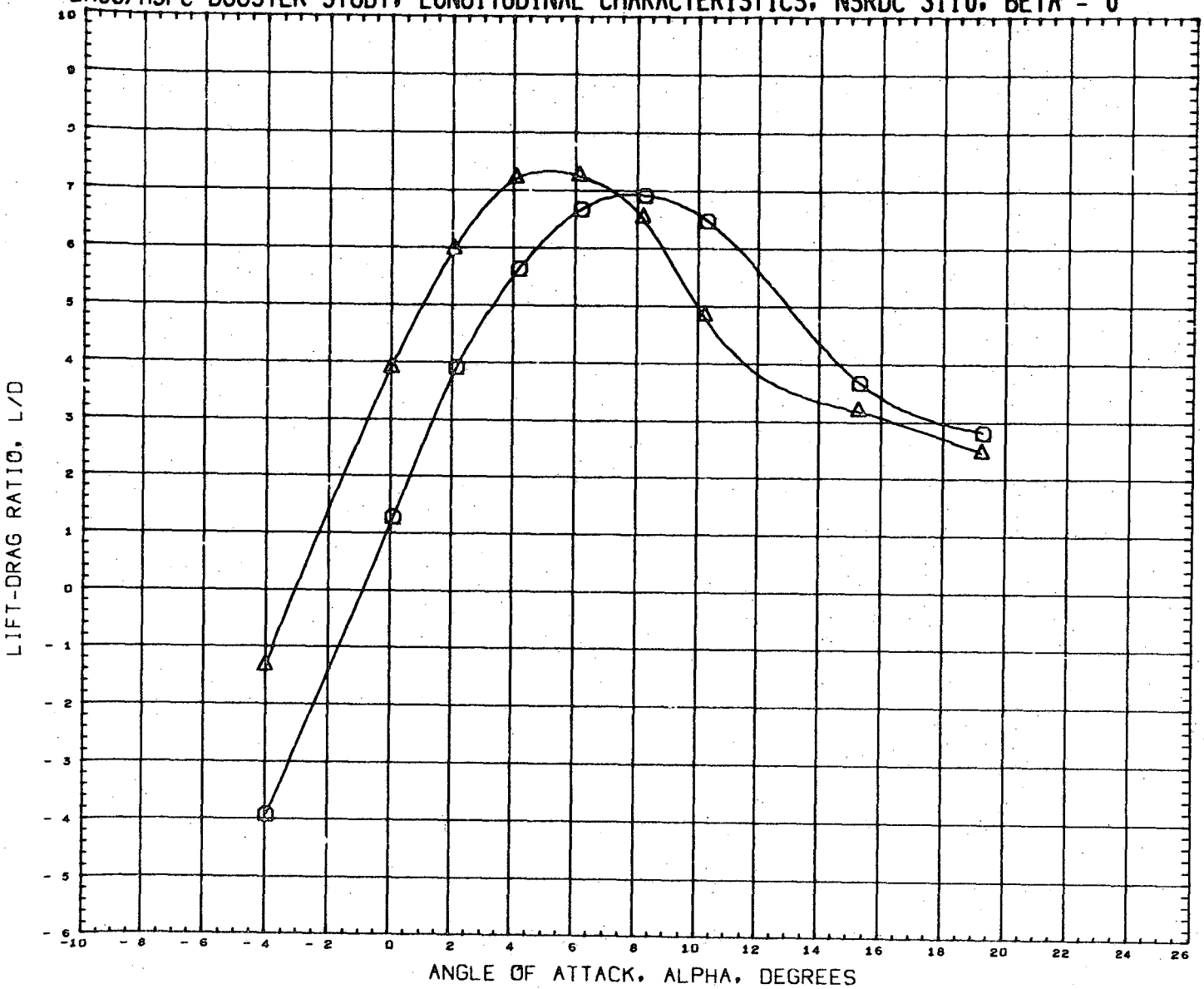



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2137) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 2.000 | 0.000 | 1.000 |
| (RN2169) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 2.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

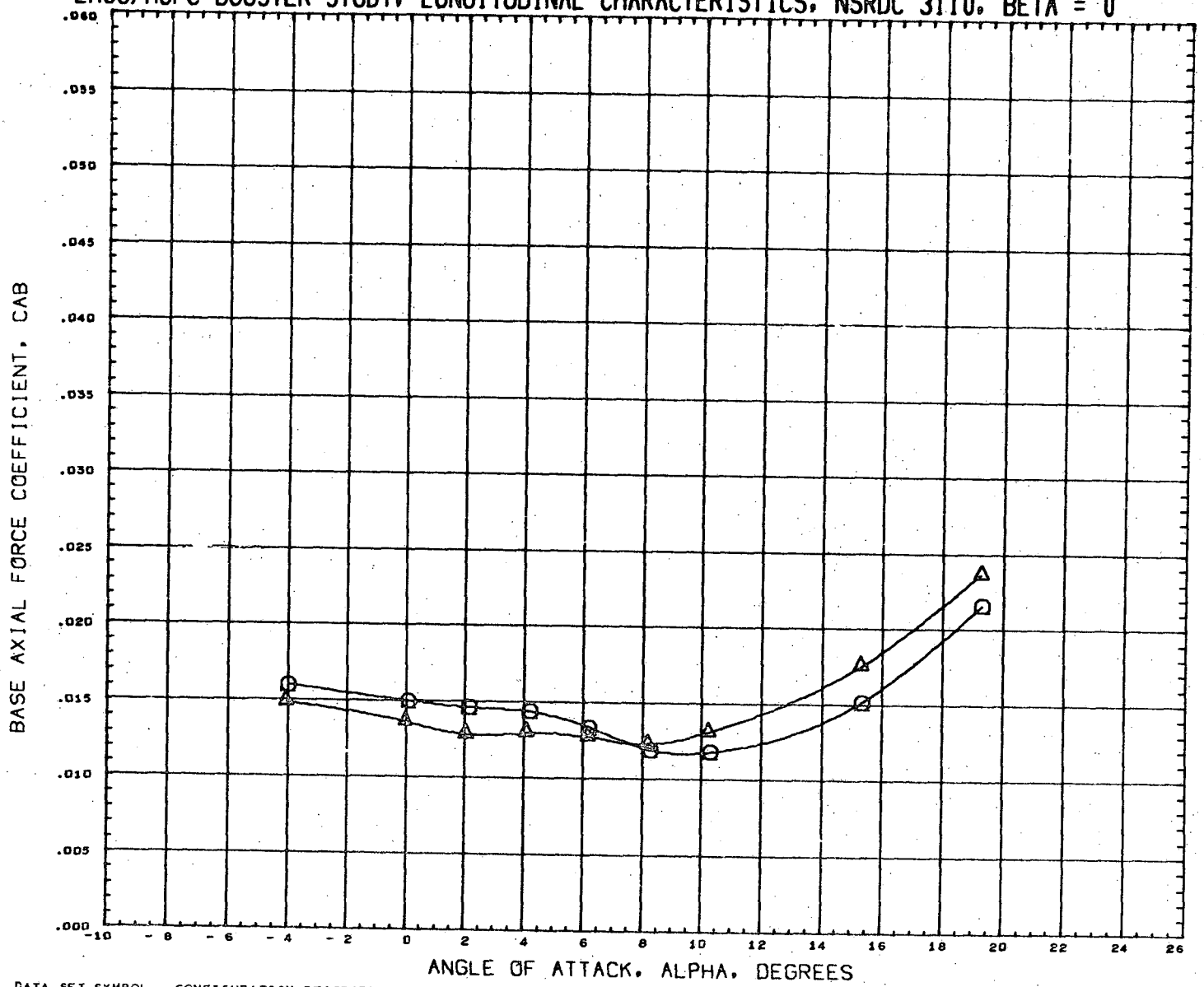



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2137) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 2.000 | 0.000 | 1.000 |
| (RN2169) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 2.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

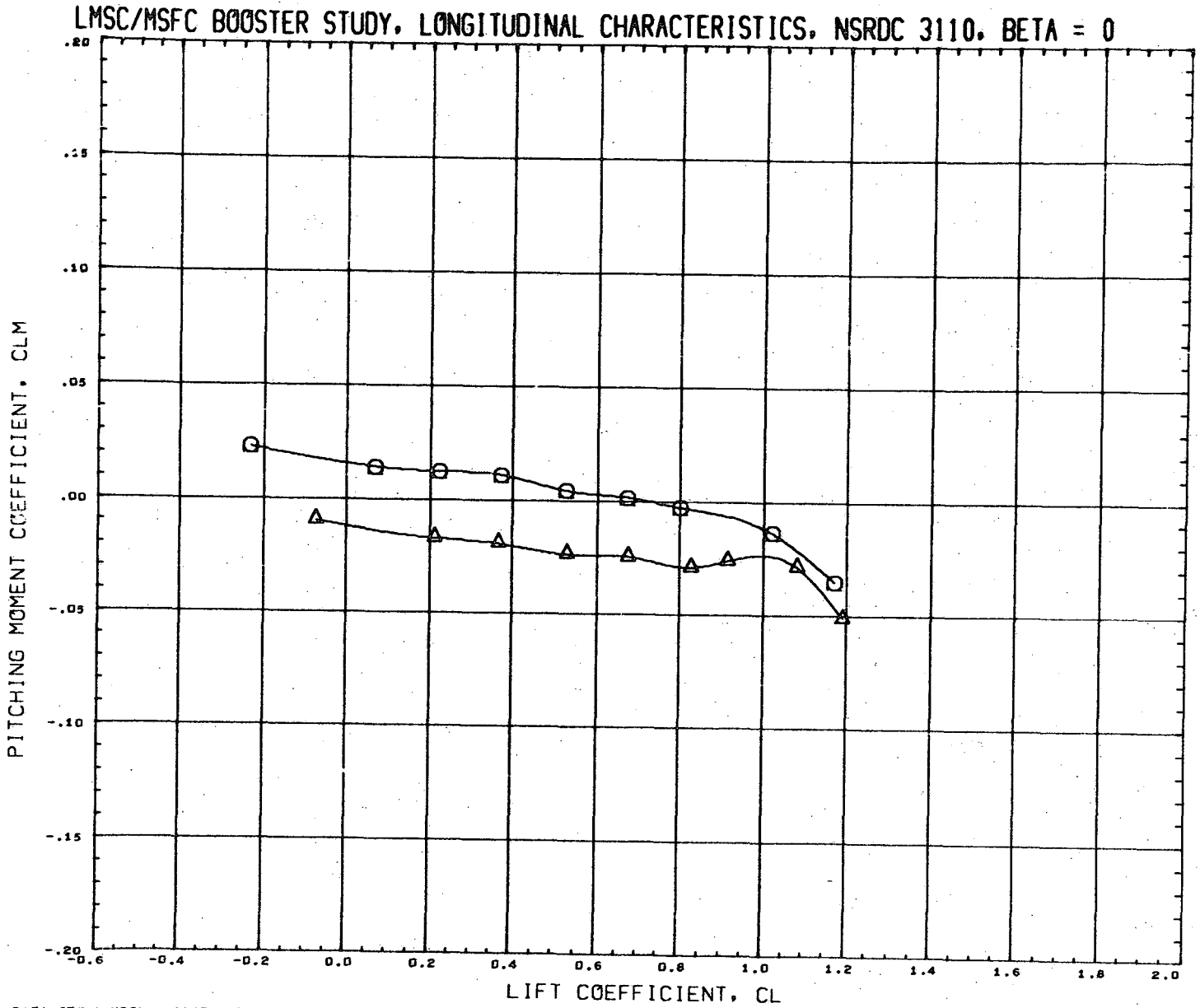
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2137) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 2.000 | 0.000 | 1.000 |
| (RN2169) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 2.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

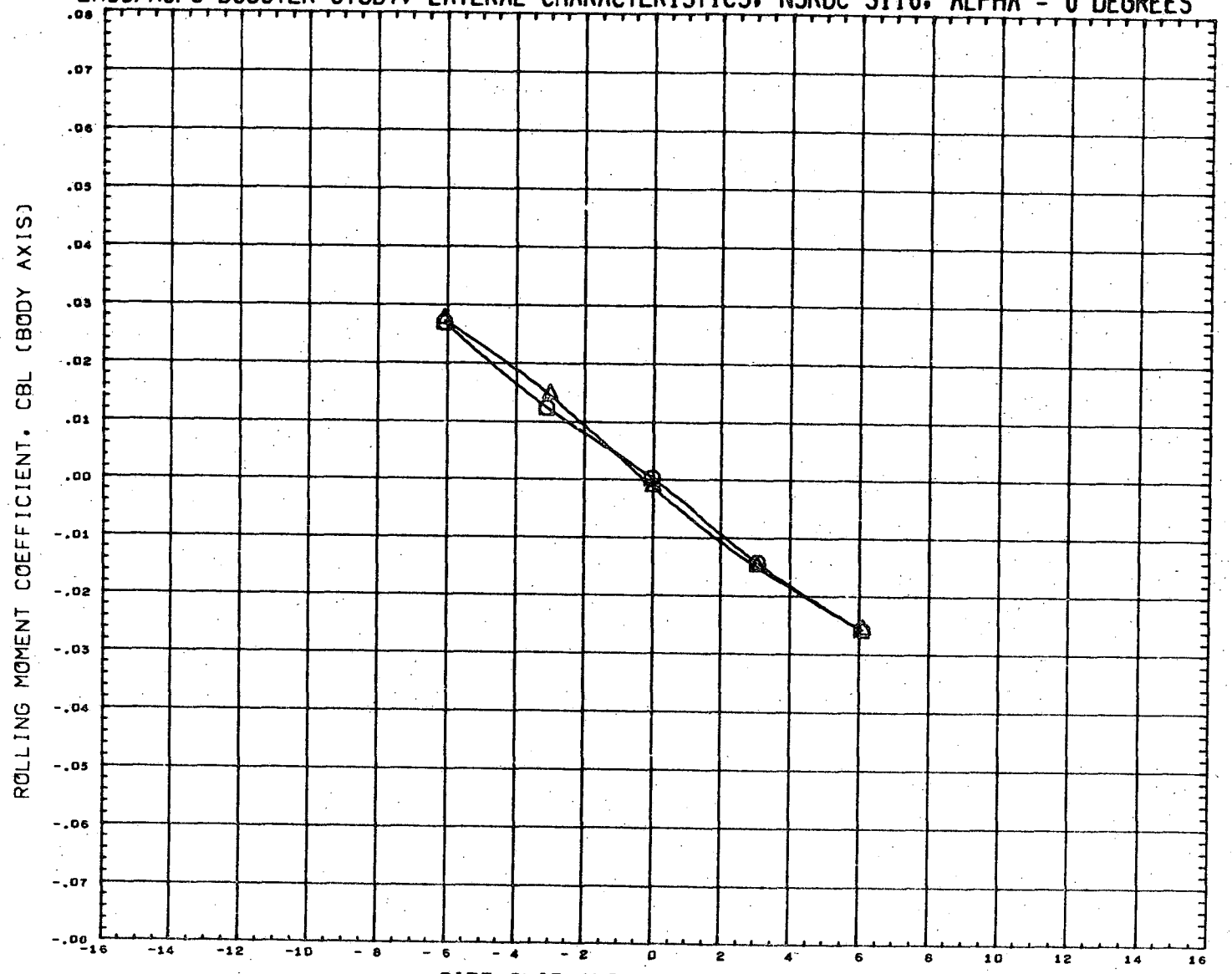



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2137) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 2.000 | 0.000 | 1.000 |
| (RN2169) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 2.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY. LATERAL CHARACTERISTICS. NSRDC 3110. ALPHA = 0 DEGREES

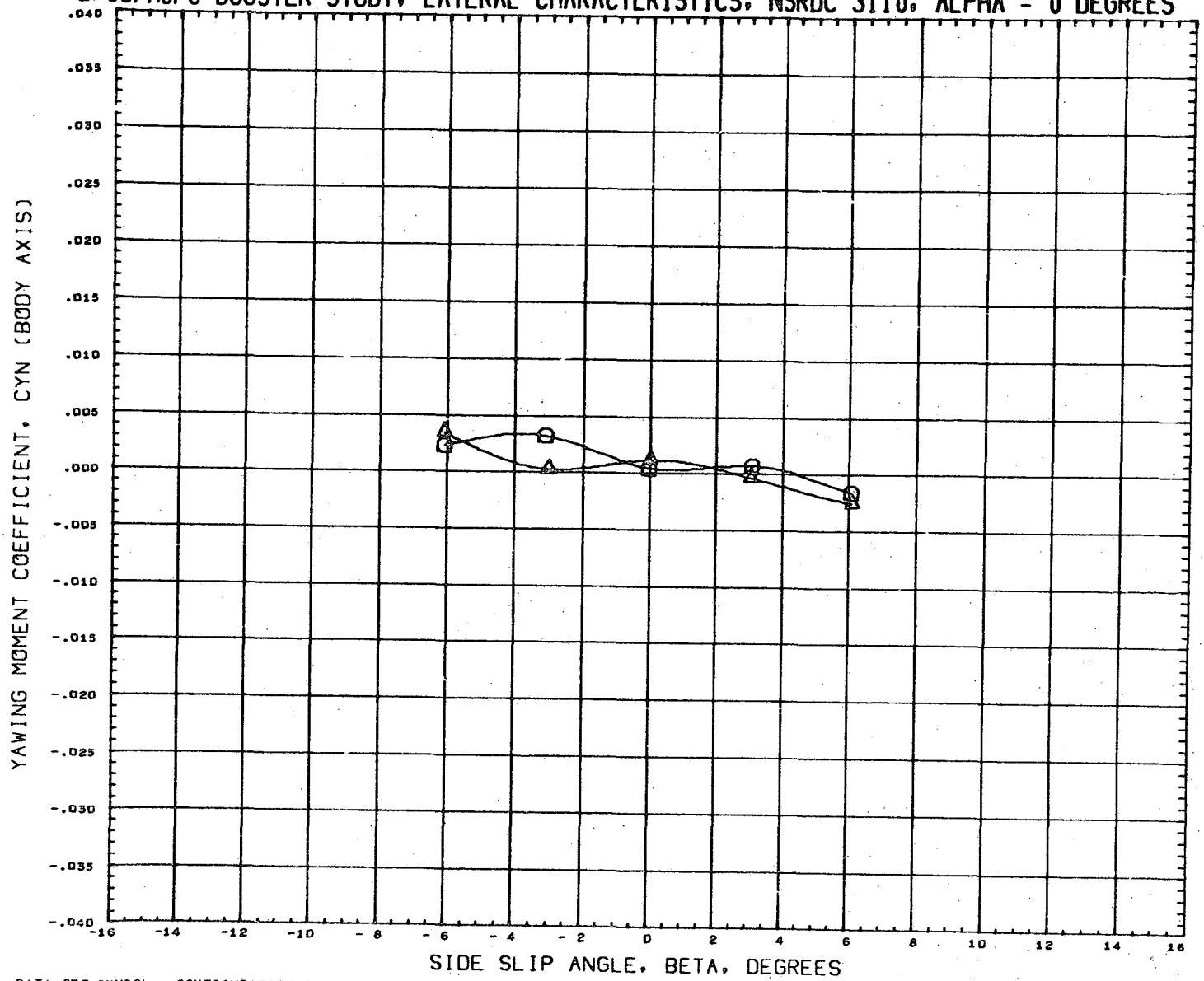



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2138) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 2.000 | 0.000 | 1.000 |
| (RN2170) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 2.000 | 3.000 | 1.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

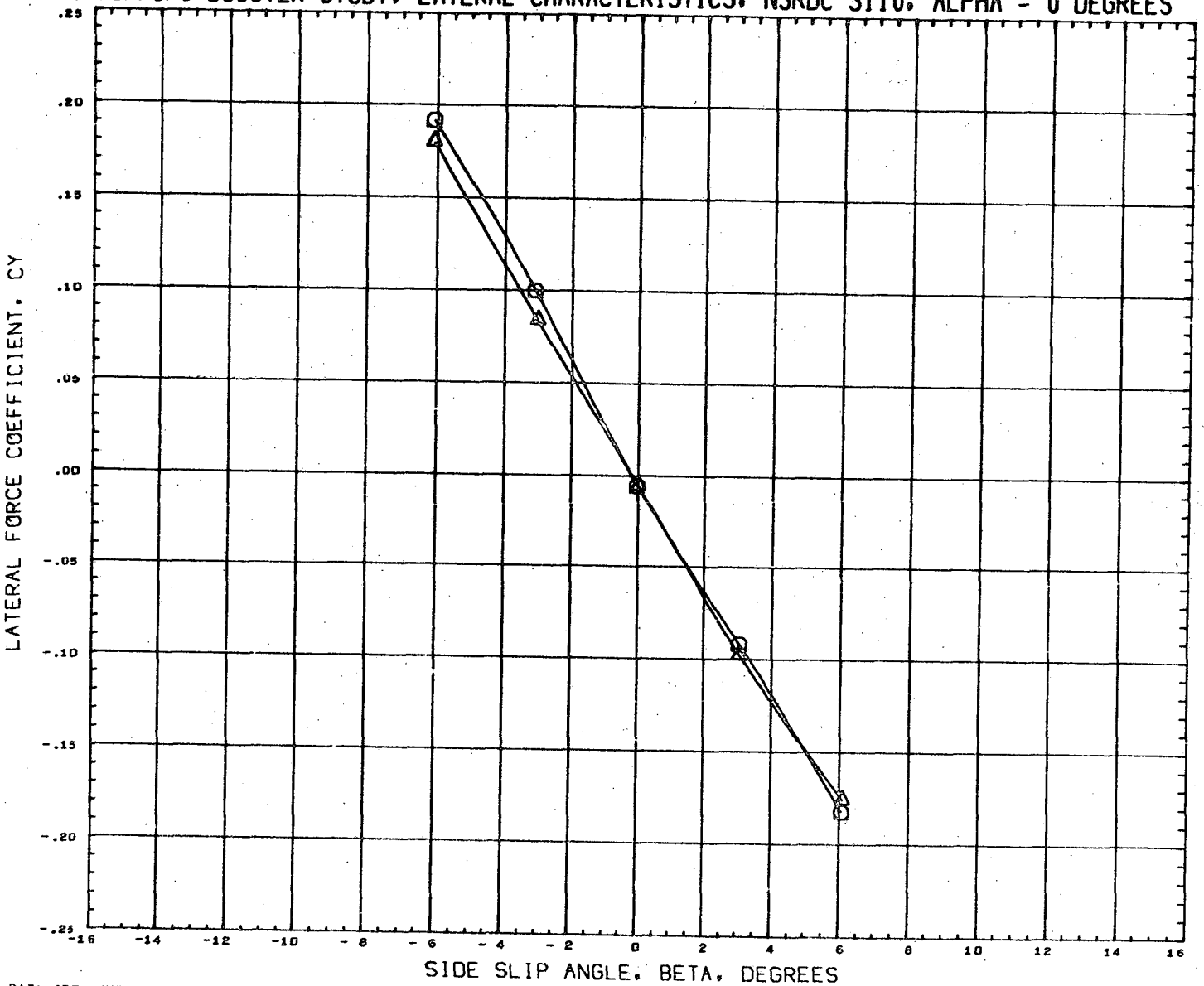



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2138) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 2.000 | 0.000 | 1.000 |
| (RN2170) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 2.000 | 3.000 | 1.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

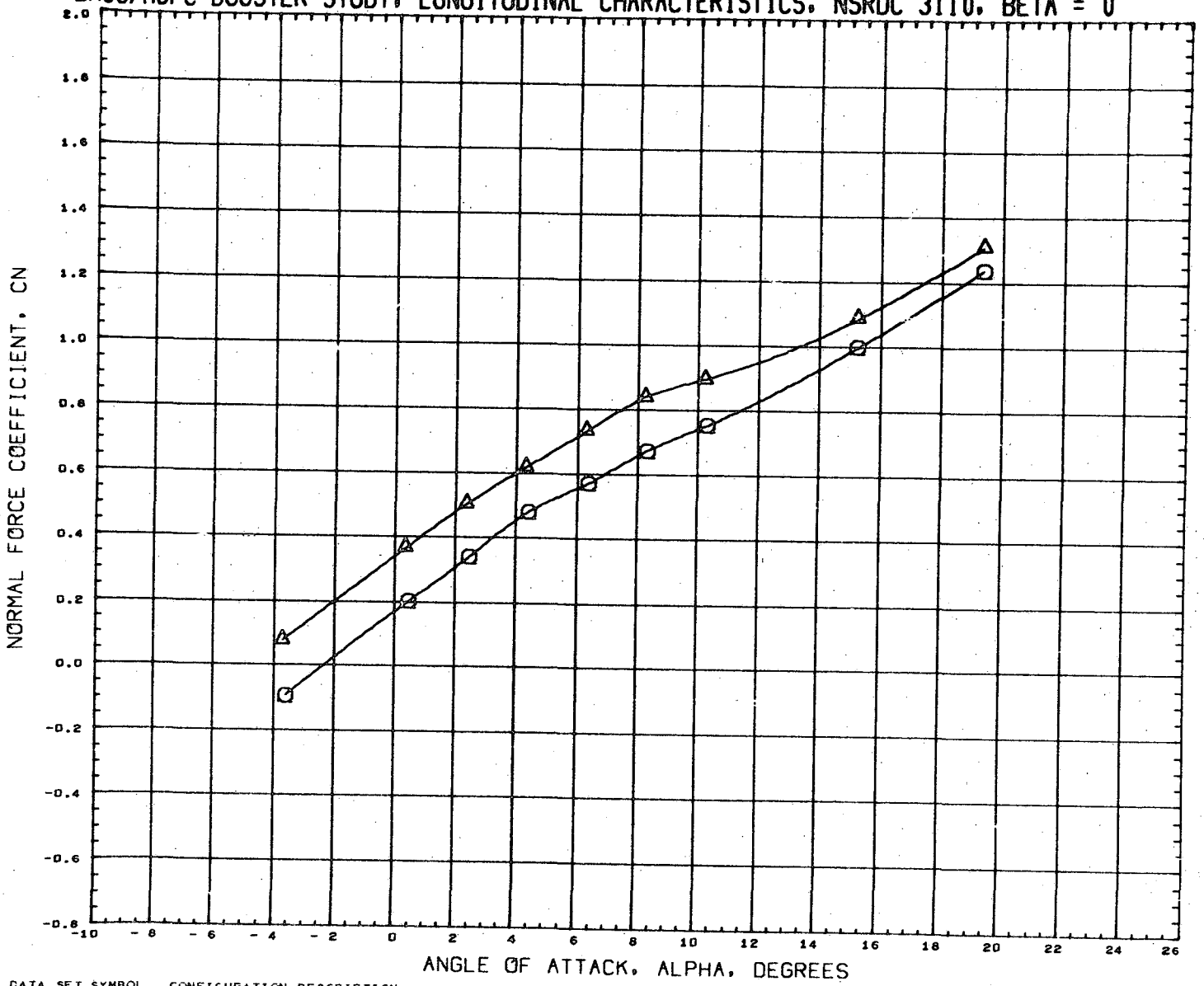



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2138) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 2.000 | 0.000 | 1.000 |
| (RN2170) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 2.000 | 3.000 | 1.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

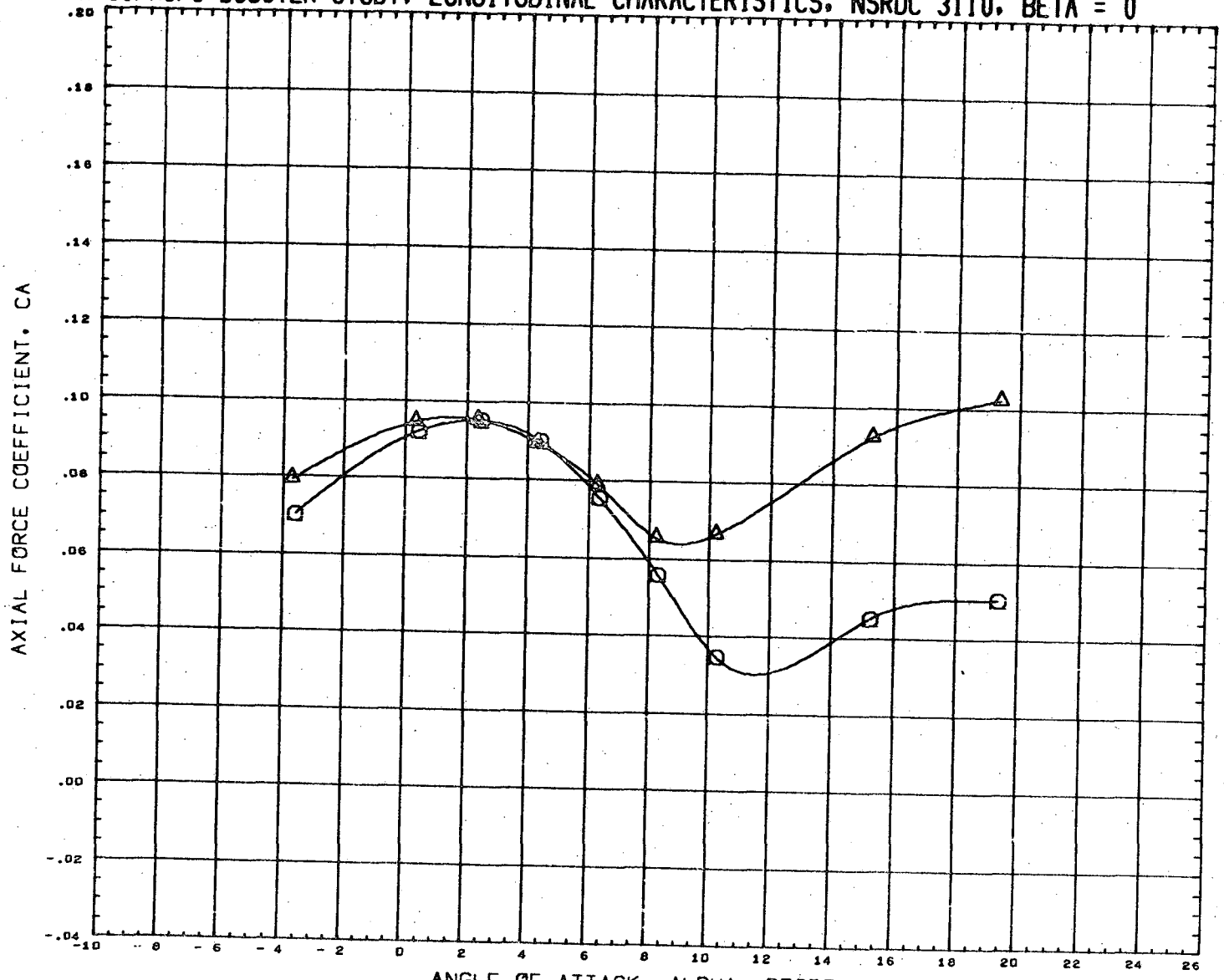



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDFOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2141) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 2.000 | 0.000 | 1.000 |
| (RN2173) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 2.000 | 3.000 | 1.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0



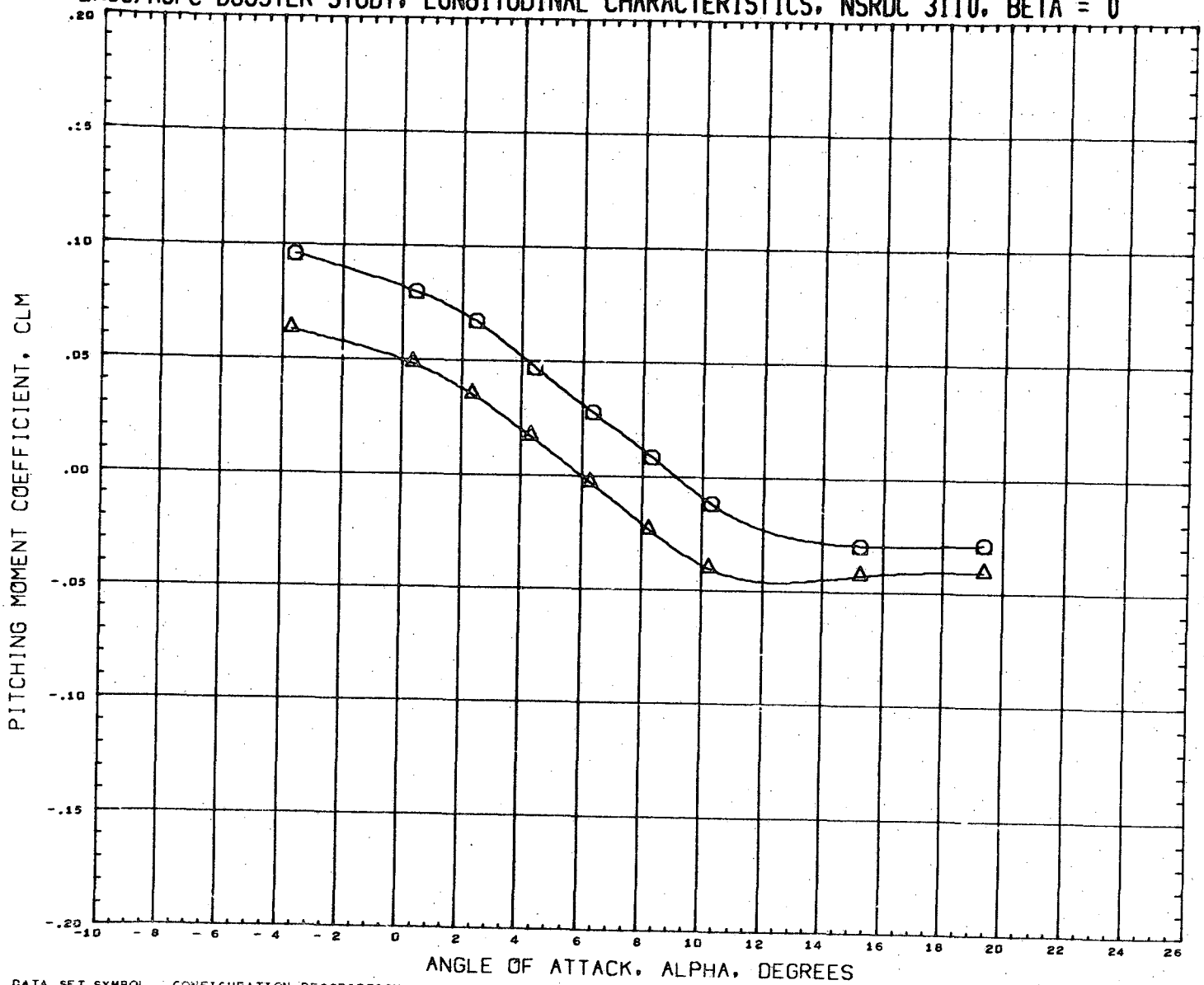

| DATA SET SYMBOL | CONFIGURATION DESCRIPTION |
|---|---|
| (RN2141) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 |
| (RN2173) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 |

| INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|
| 15.000 | 2.000 | 0.000 | 1.000 |
| 15.000 | 2.000 | 3.000 | 1.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

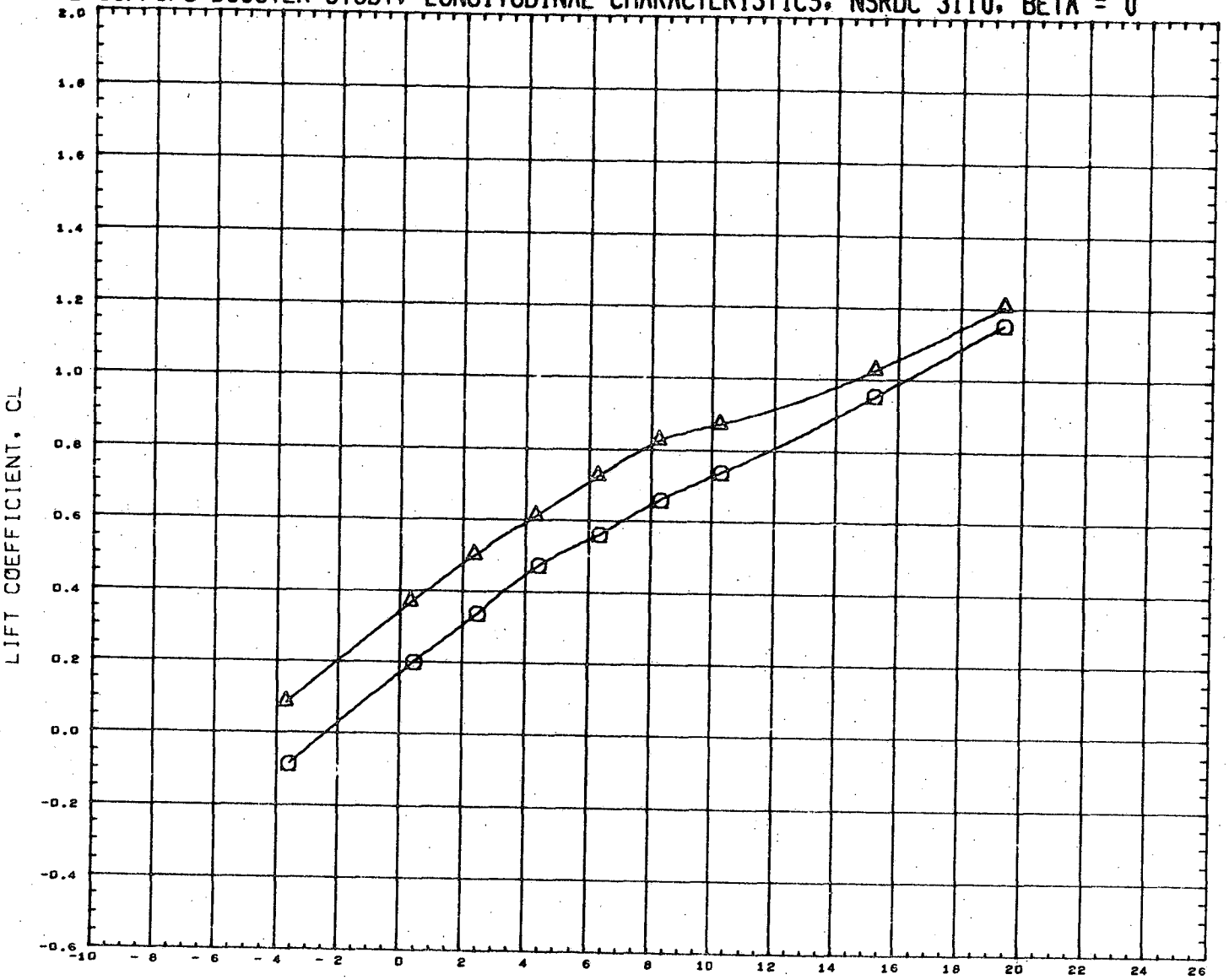



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2141) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 2.000 | 0.000 | 1.000 |
| (RN2173) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 2.000 | 3.000 | 1.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

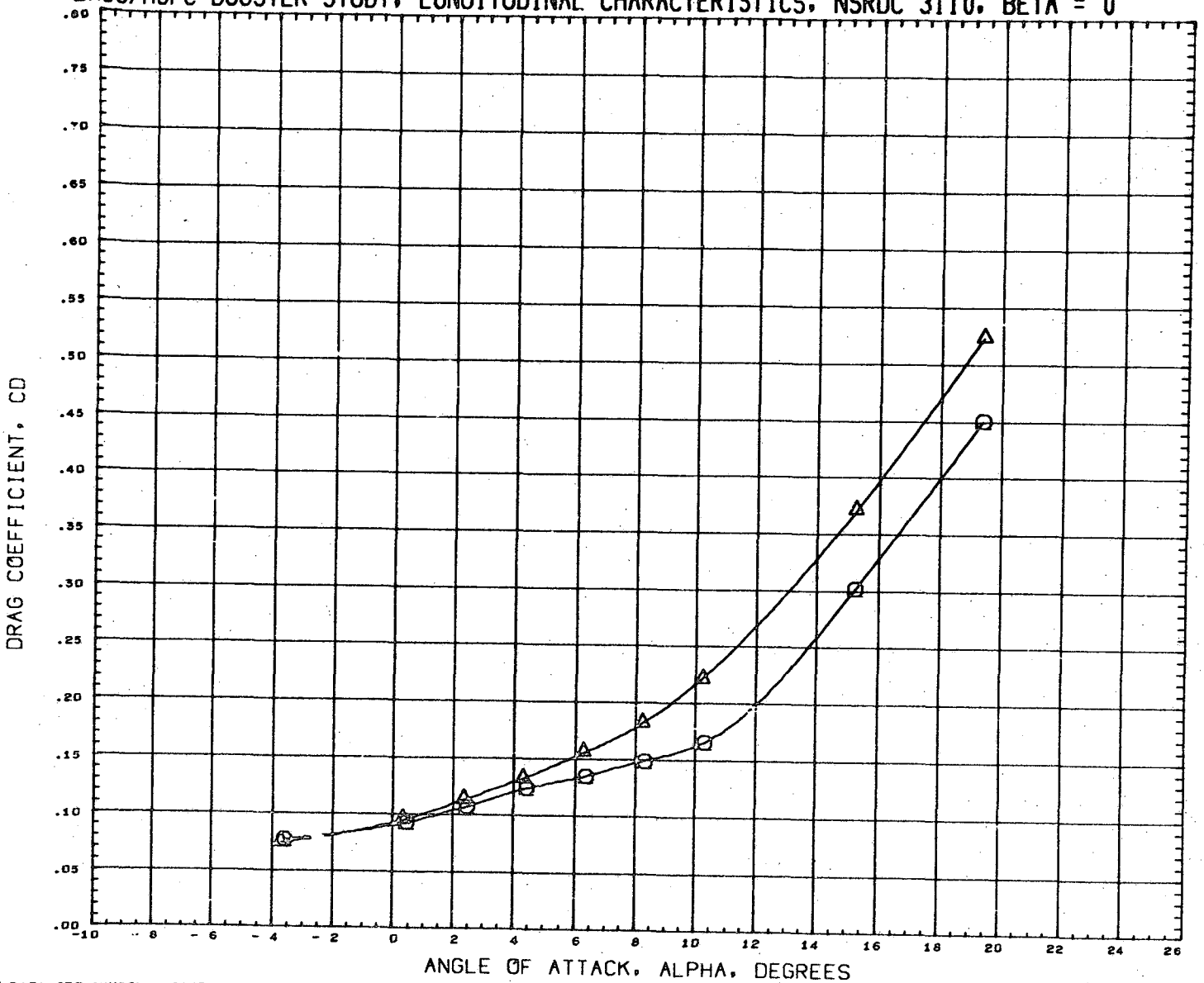



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2141) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 2.000 | 0.000 | 1.000 |
| (RN2173) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 2.000 | 3.000 | 1.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

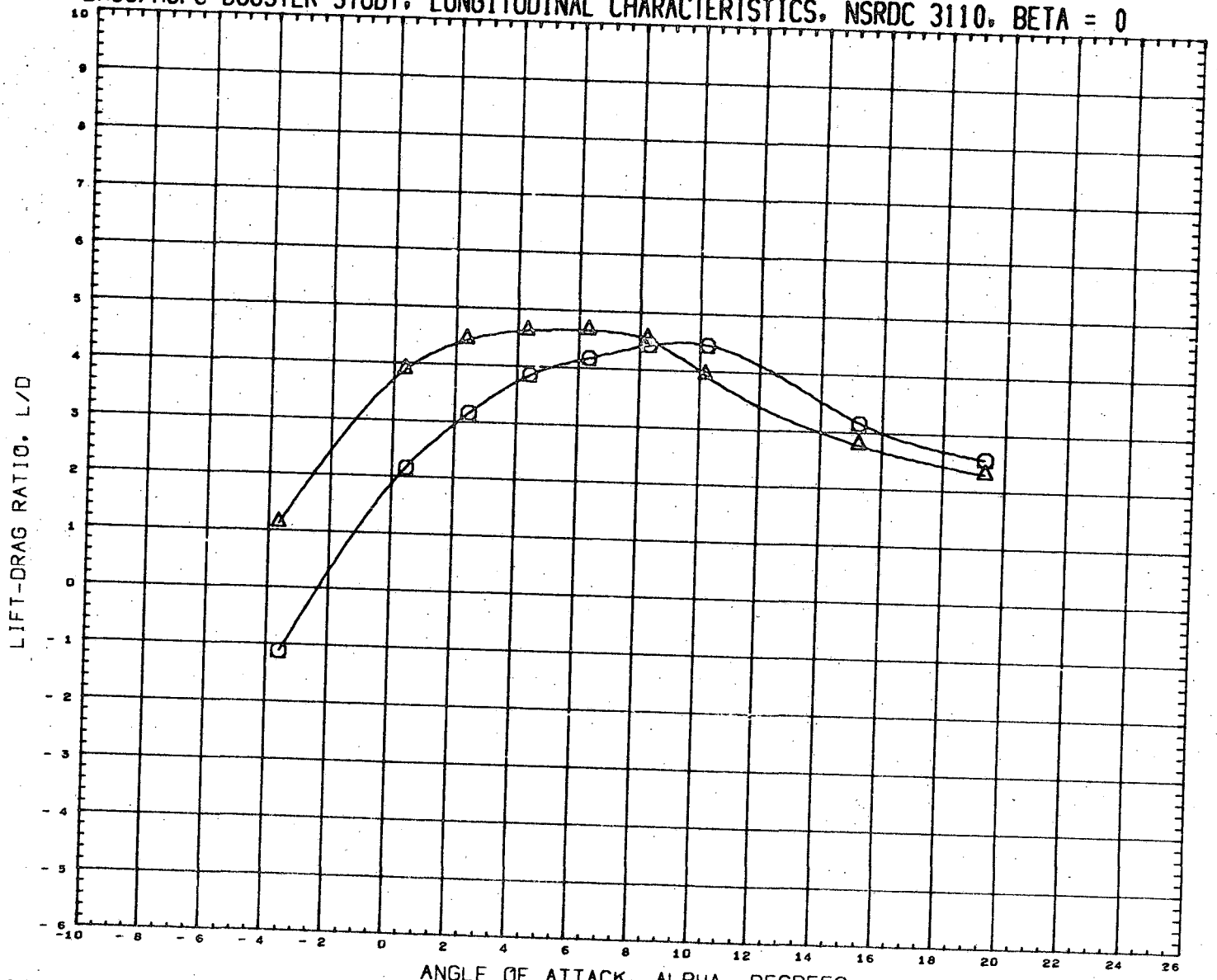



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2141) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 2.000 | 0.000 | 1.000 |
| (RN2173) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 2.000 | 3.000 | 1.000 |

MACH 0.360

| REFERENCE INFORMATION: | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

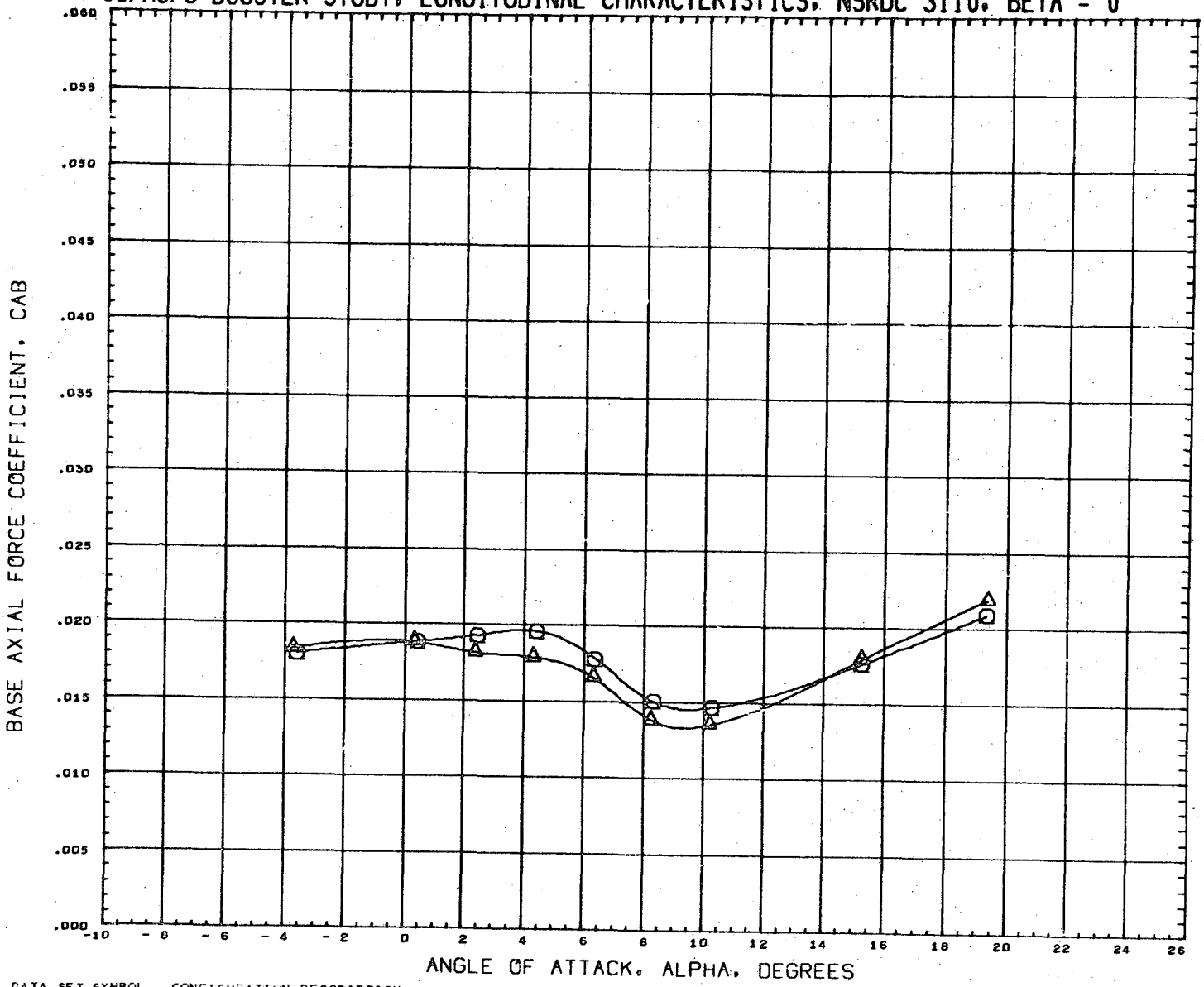



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2141) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 2.000 | 0.000 | 1.000 |
| (RN2173) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 2.000 | 3.000 | 1.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY. LONGITUDINAL CHARACTERISTICS. NSRDC 3110. BETA = 0

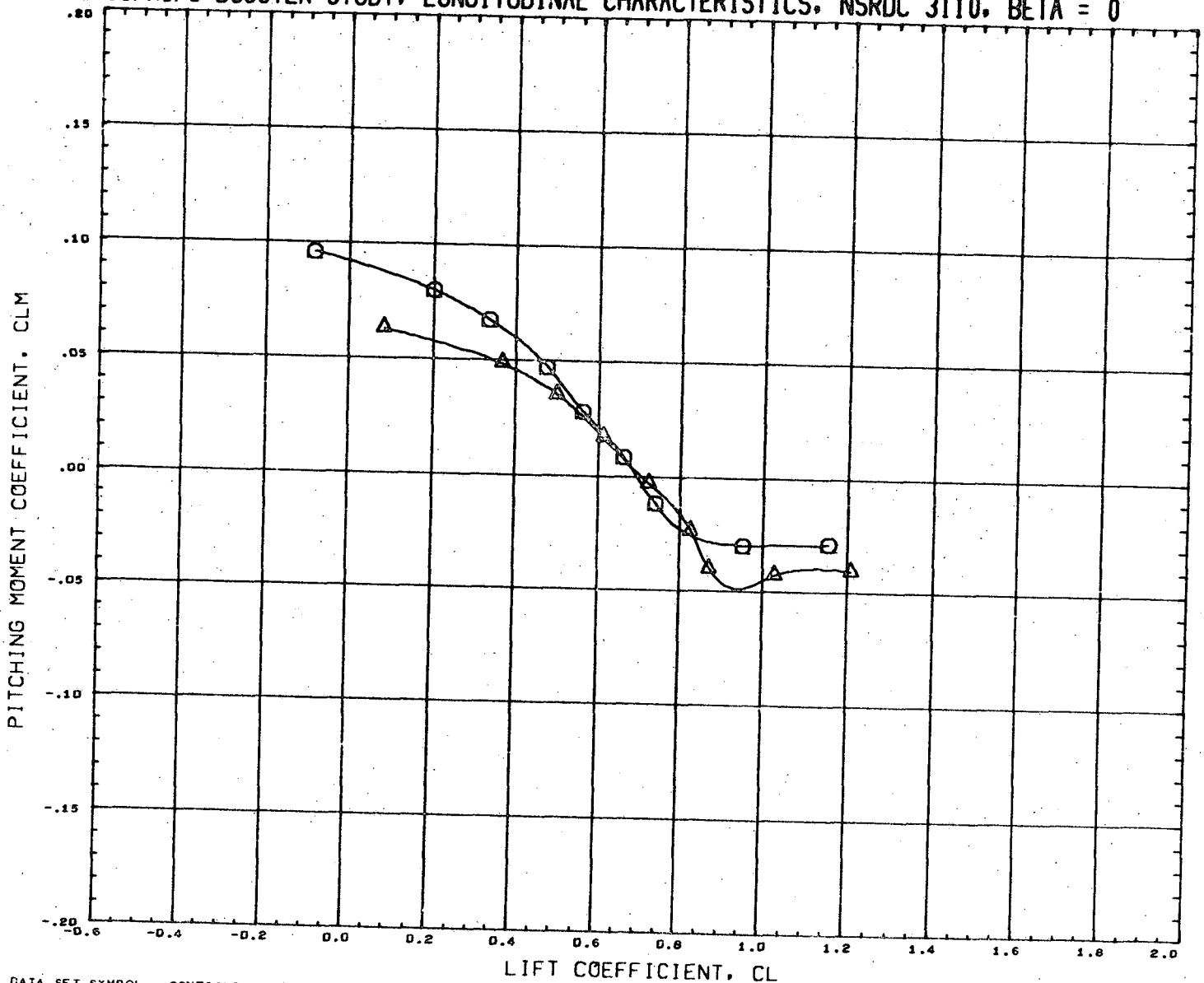



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2141) ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 2.000 | 0.000 | 1.000 |
| (RN2173) △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 2.000 | 3.000 | 1.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

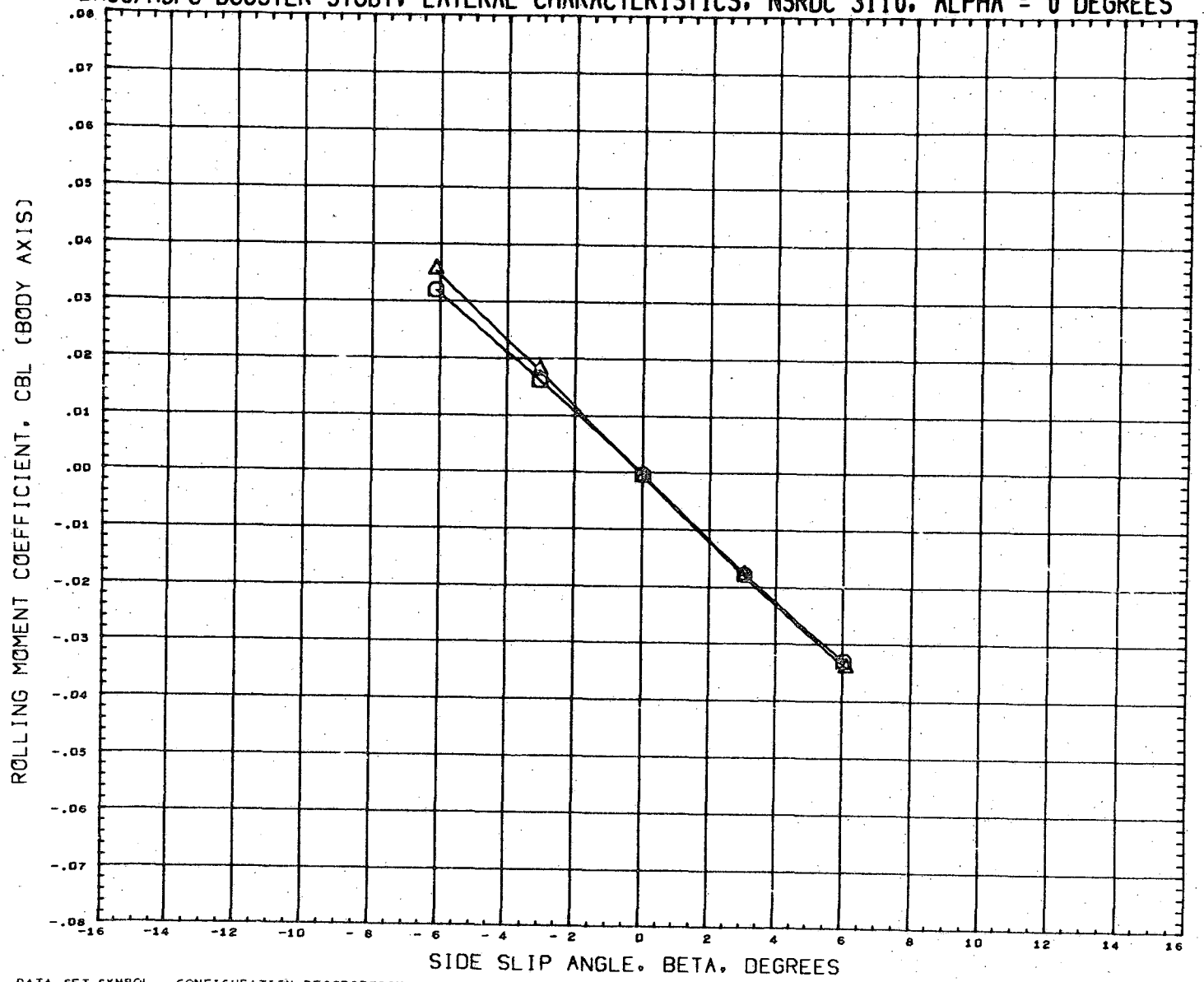



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2141) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 2.000 | 0.000 | 1.000 |
| (RN2173) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 2.000 | 3.000 | 1.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

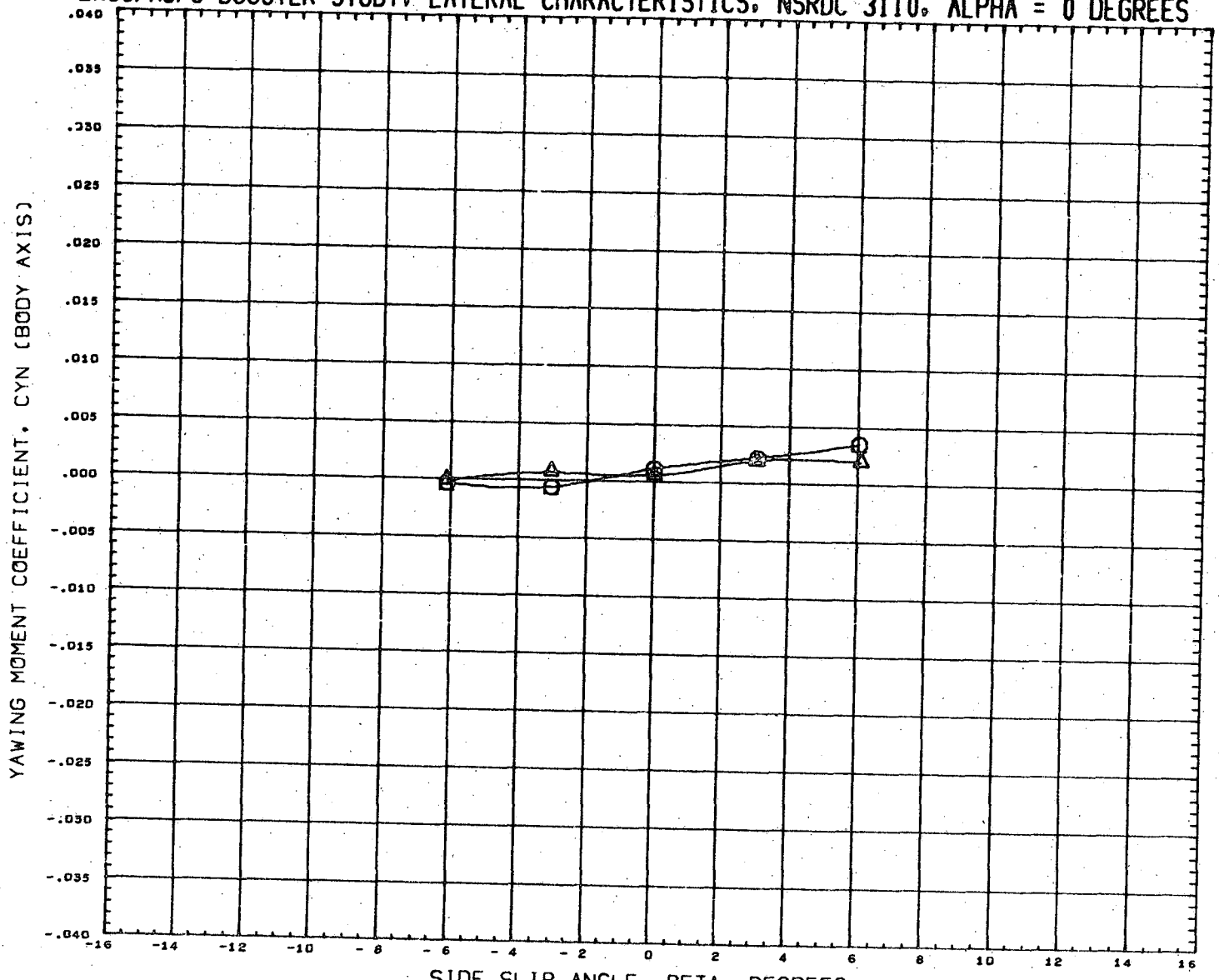



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2142) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 2.000 | 0.000 | 1.000 |
| (RN2174) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 2.000 | 3.000 | 1.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

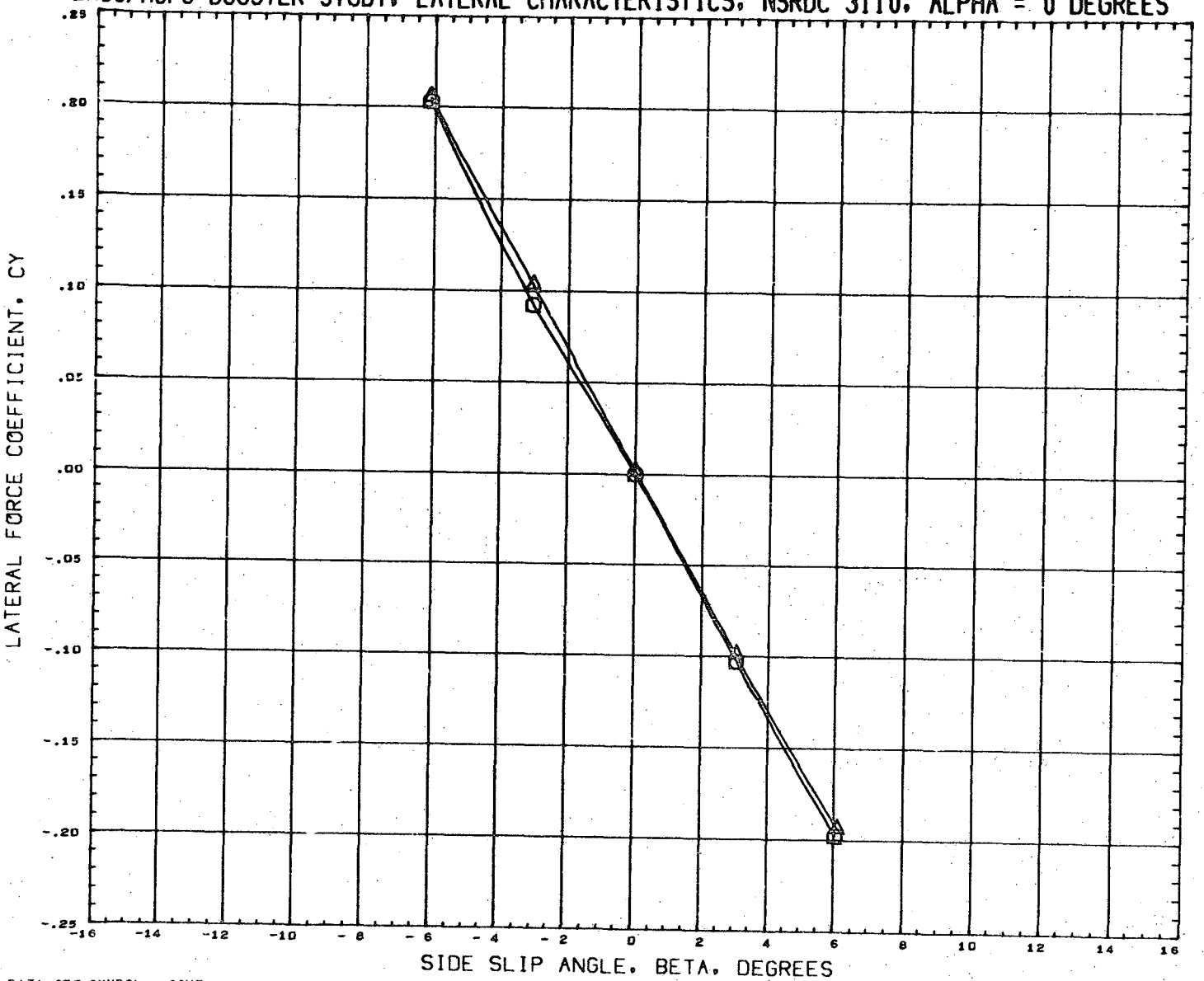



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2142) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 2.000 | 0.000 | 1.000 |
| (RN2174) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 2.000 | 3.000 | 1.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

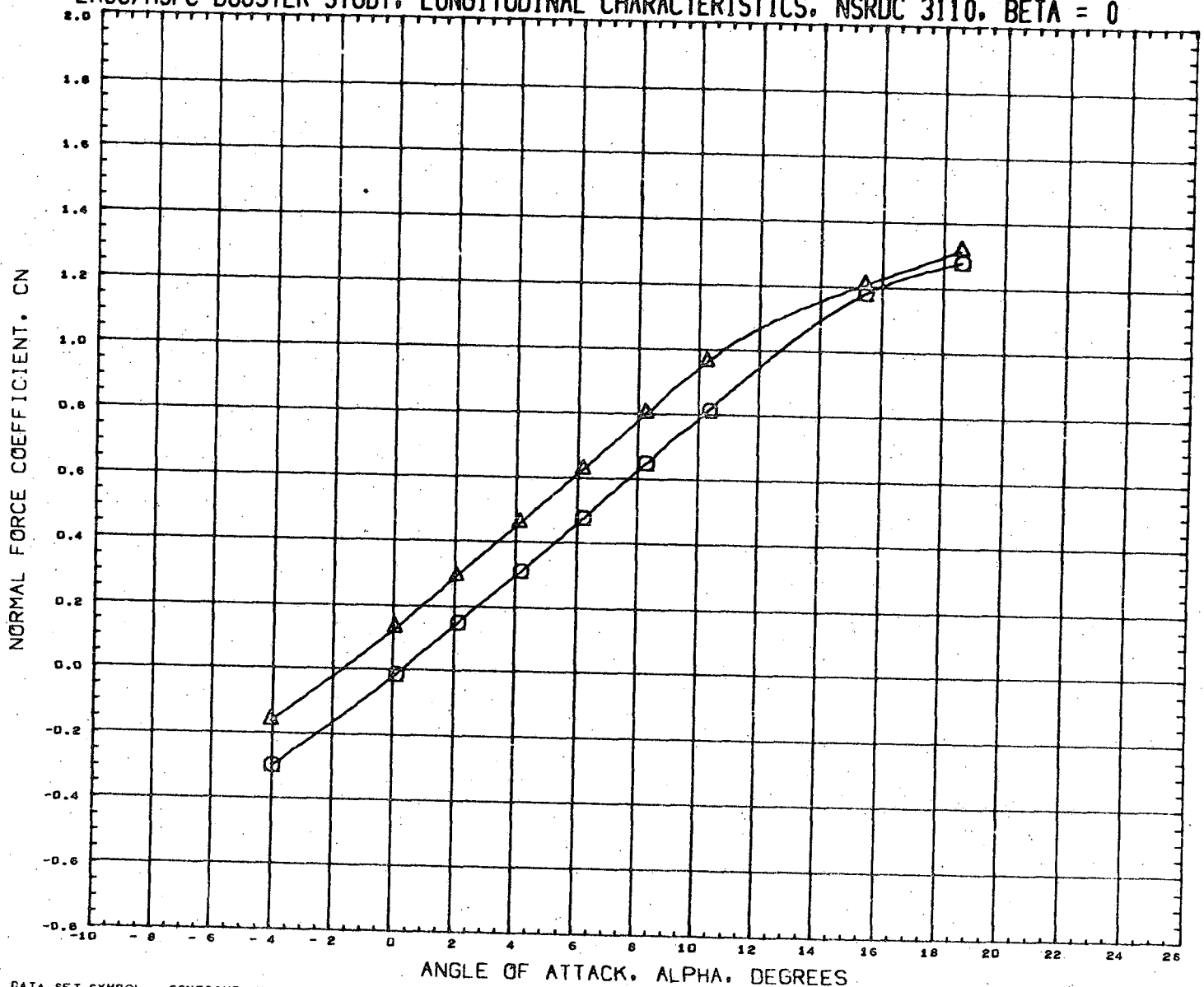



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2142) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 2.000 | 0.000 | 1.000 |
| (RN2174) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 2.000 | 3.000 | 1.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

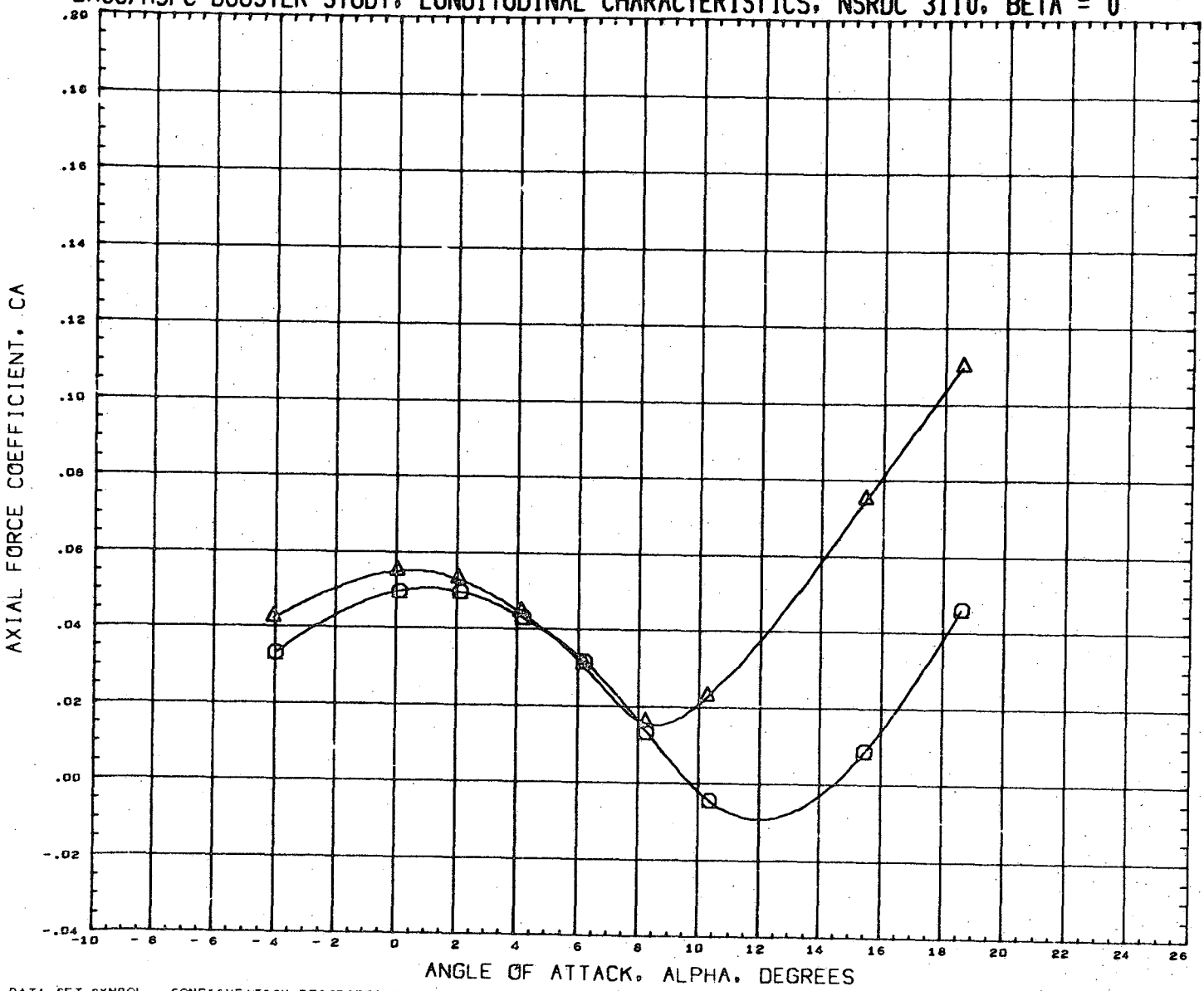



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2145) | | NSRDC 3110 MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 1.000 | 0.000 | 2.000 |
| (RN2177) | | NSRDC 3110 MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 1.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

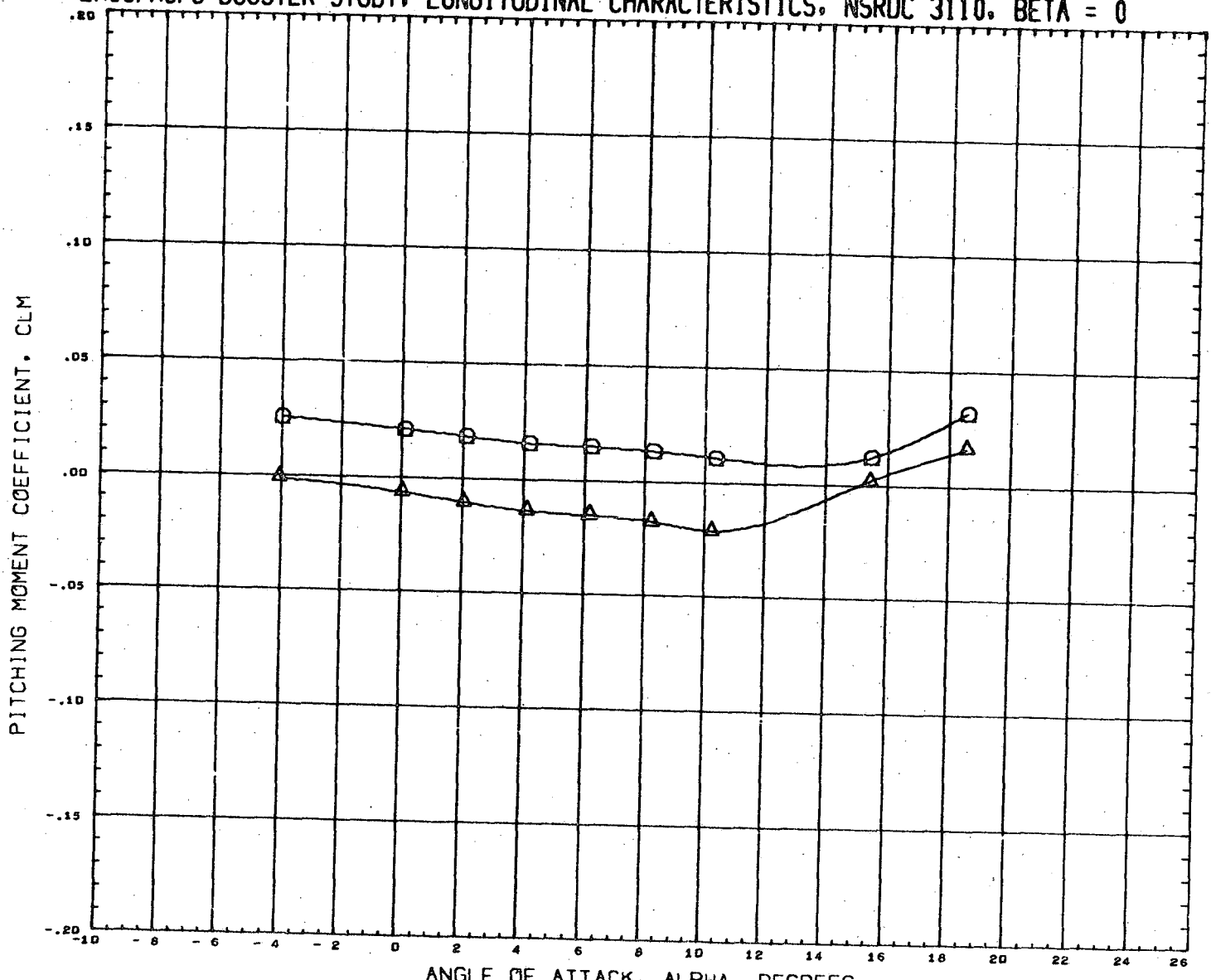



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2145) | ○ | NSRDC 3110 MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 1.000 | 0.000 | 2.000 |
| (RN2177) | △ | NSRDC 3110 MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 1.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

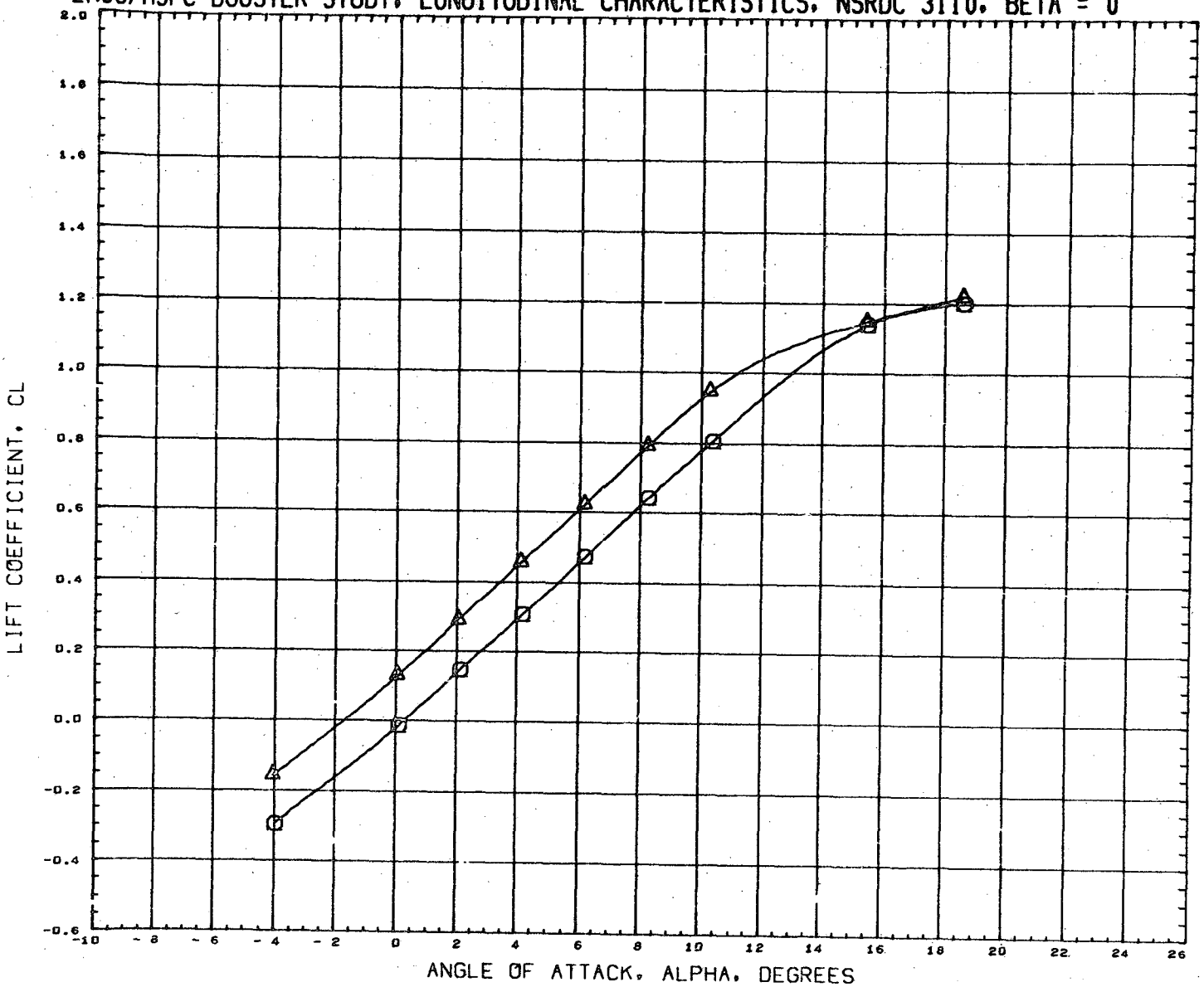



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2145) | ○ | NSRDC 3110 MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 1.000 | 0.000 | 2.000 |
| (RN2177) | △ | NSRDC 3110 MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 1.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY. LONGITUDINAL CHARACTERISTICS. NSRDC 3110. BETA = 0



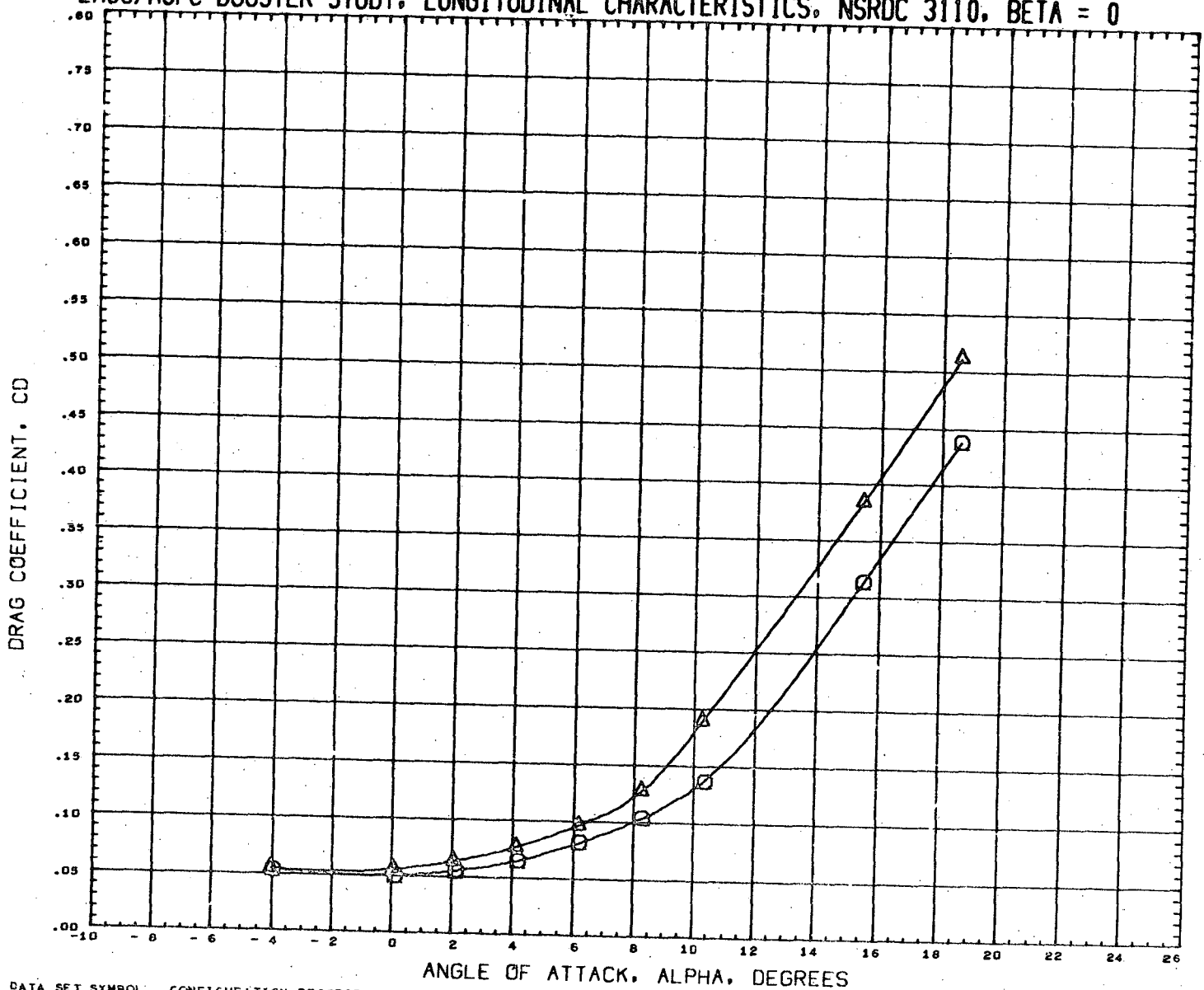

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2145) | ○ | NSRDC 3110 MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 1.000 | 0.000 | 2.000 |
| (RN2177) | △ | NSRDC 3110 MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 1.000 | 3.000 | 2.000 |

MACH 0.381

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| SREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0



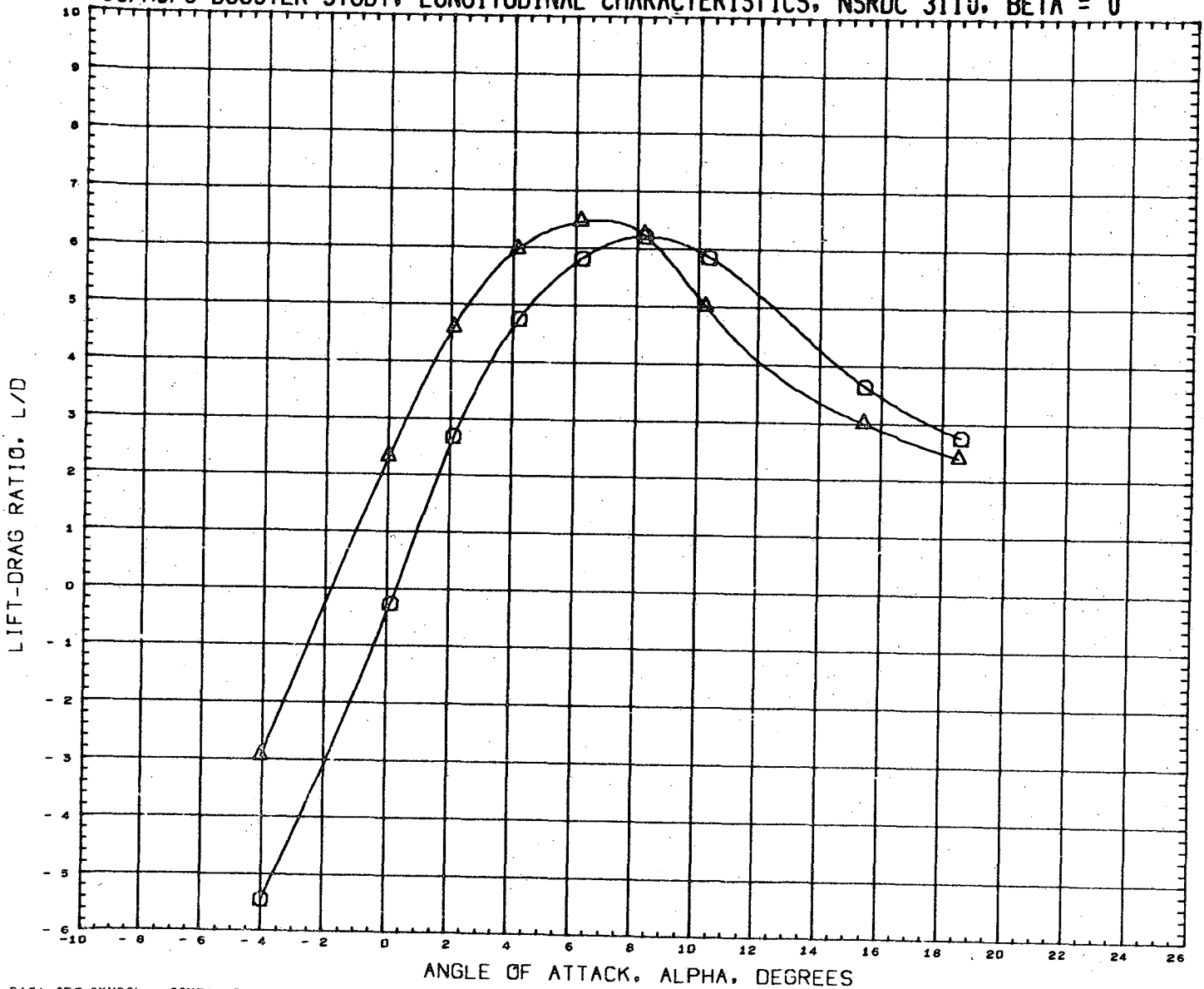

| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION |
|---|---|---|
| (RN2145) | ○ | NSRDC 3110 MSFC/LMSC BOOSTER B1C1F1W1V2D1 |
| (RN2177) | △ | NSRDC 3110 MSFC/LMSC BOOSTER B1C1F1W1V2D1 |

| INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|
| 3.000 | 1.000 | 0.000 | 2.000 |
| 3.000 | 1.000 | 3.000 | 2.000 |

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

MACH 0.381

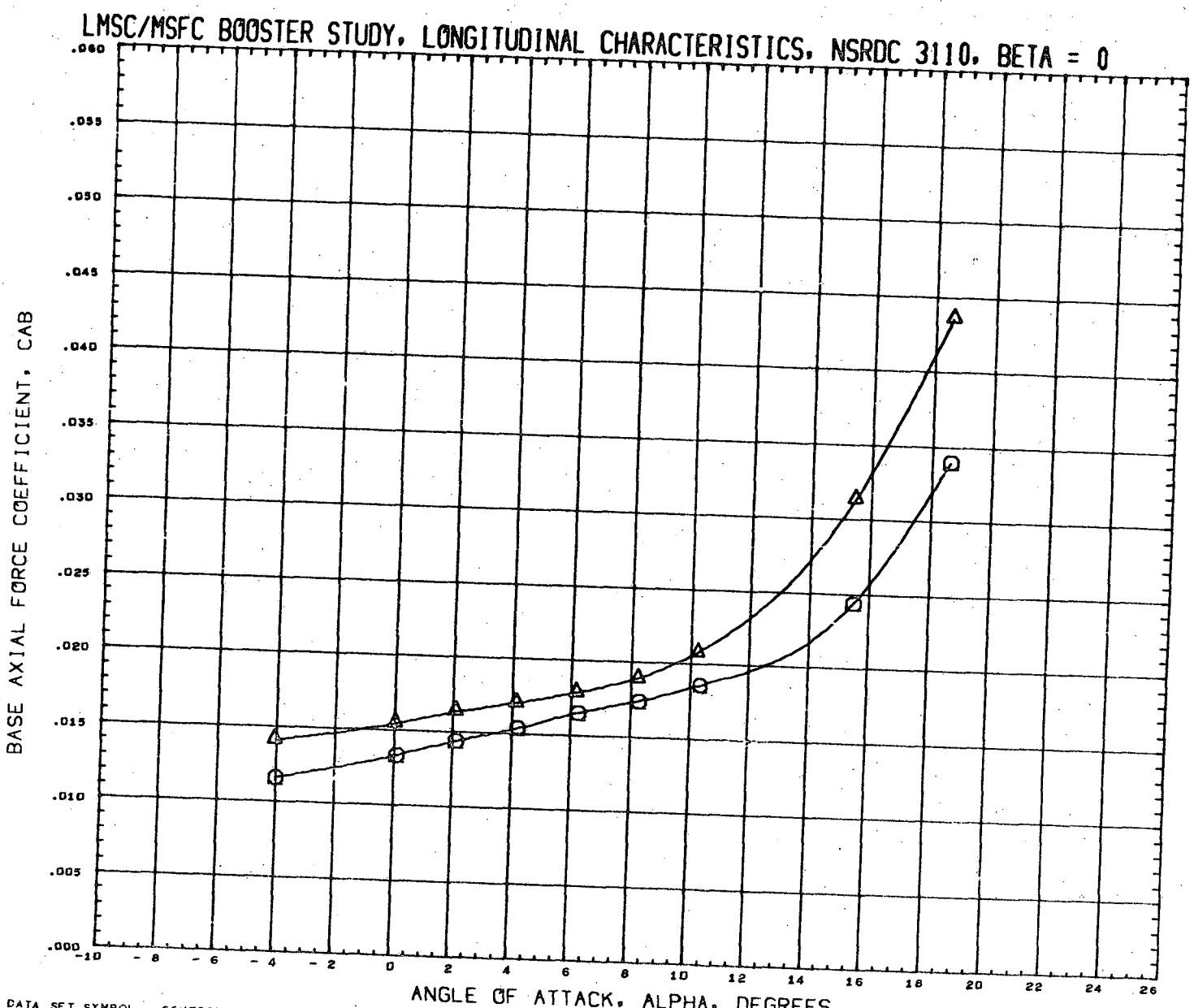
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2145) | ○ | NSRDC 3110 MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 1.000 | 0.000 | 2.000 |
| (RN2177) | △ | NSRDC 3110 MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 1.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

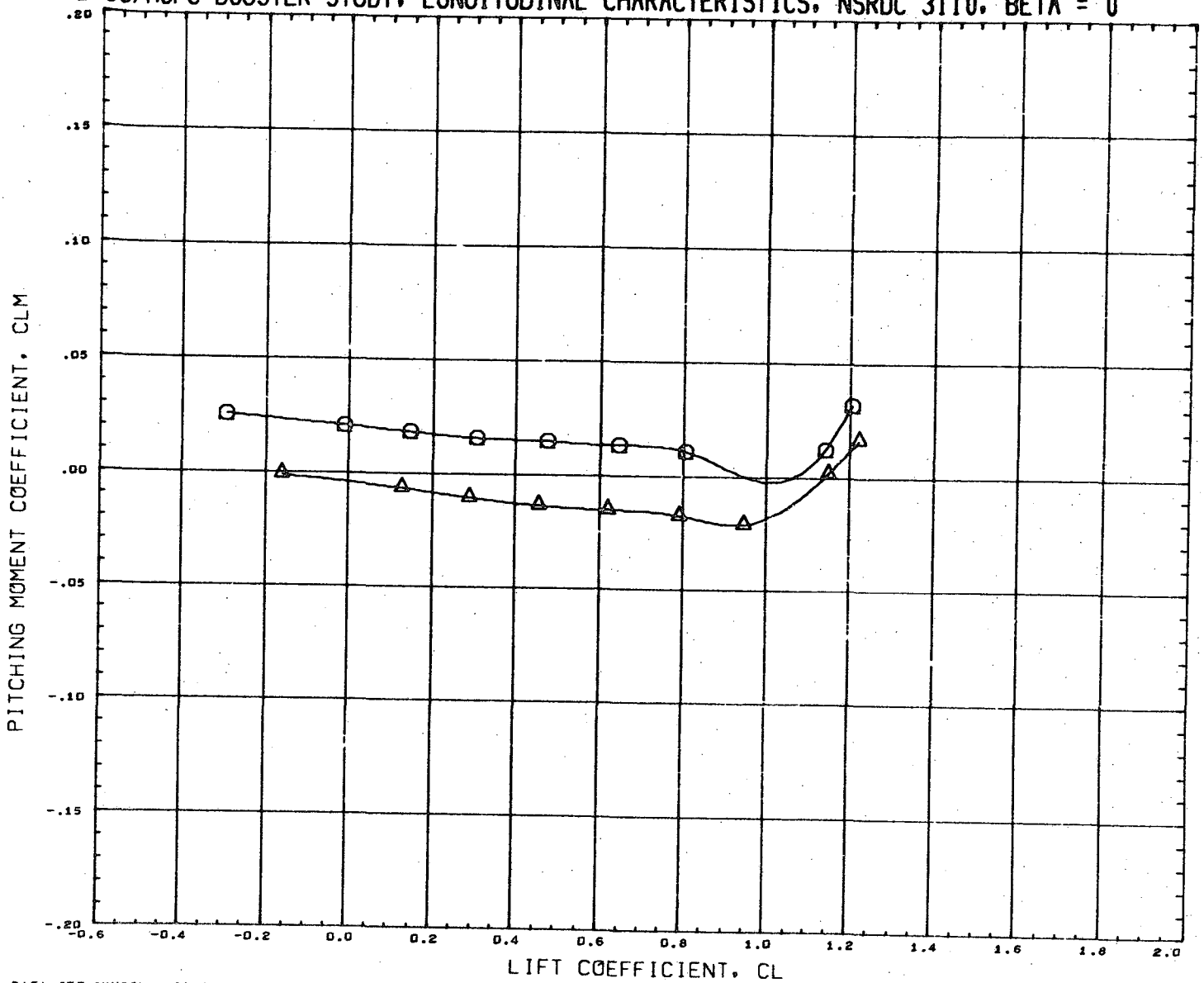



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2145) | ○ | NSRDC 3110 MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 1.000 | 0.000 | 2.000 |
| (RN2177) | △ | NSRDC 3110 MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 1.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

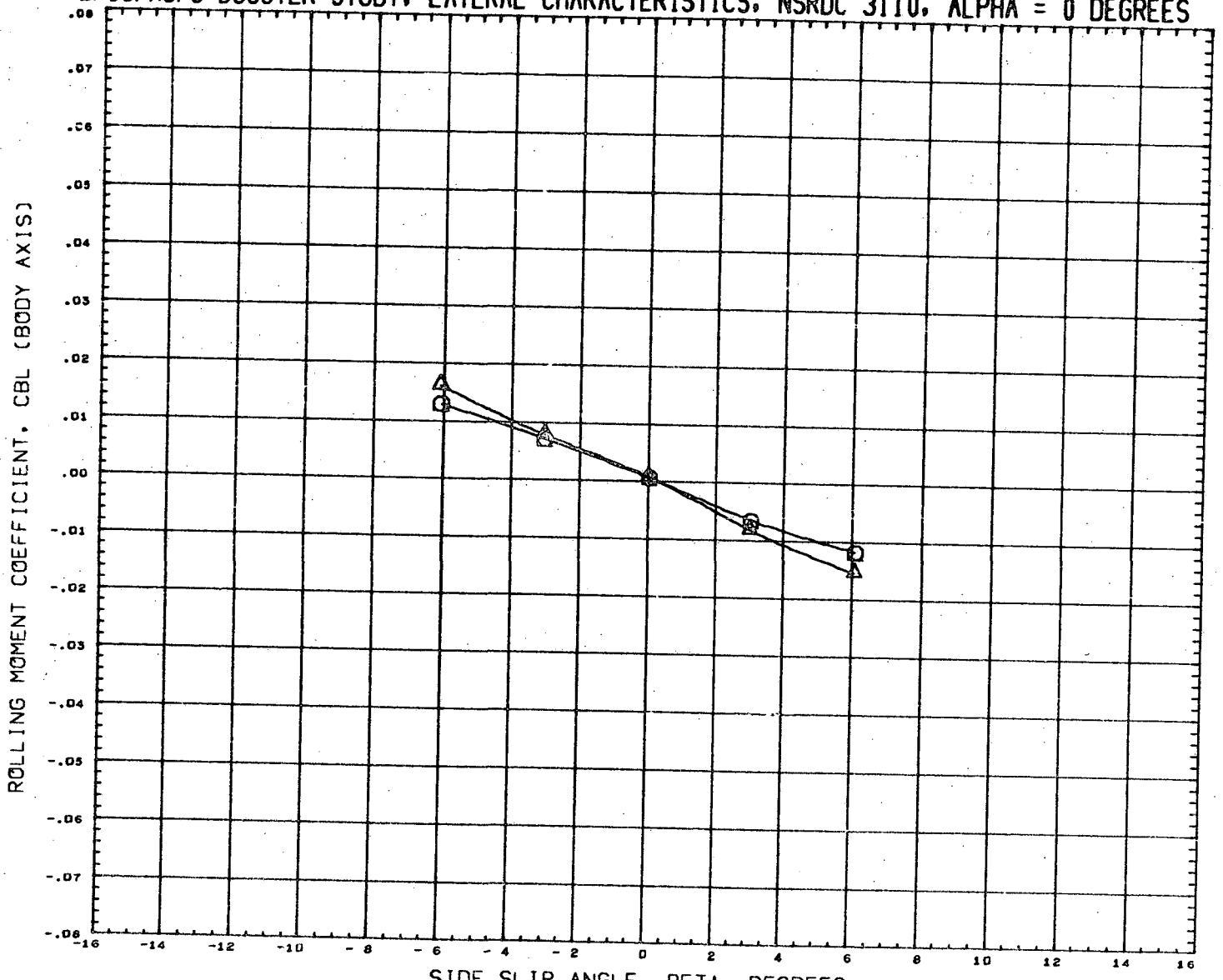



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2145) | | NSRDC 3110 MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 1.000 | 0.000 | 2.000 |
| (RN2177) | | NSRDC 3110 MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 1.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

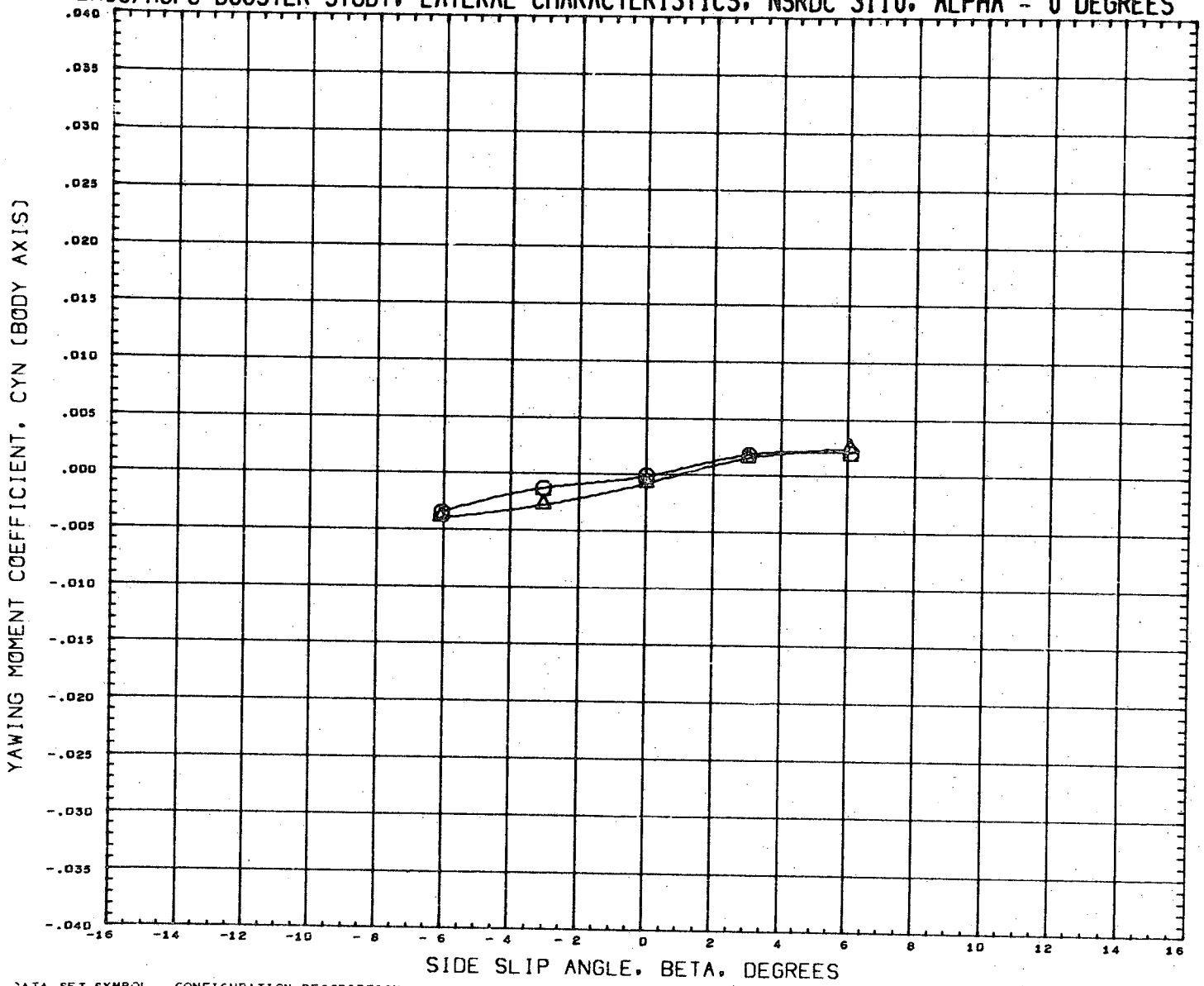



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2146) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 1.000 | 0.000 | 2.000 |
| (RN2178) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 1.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

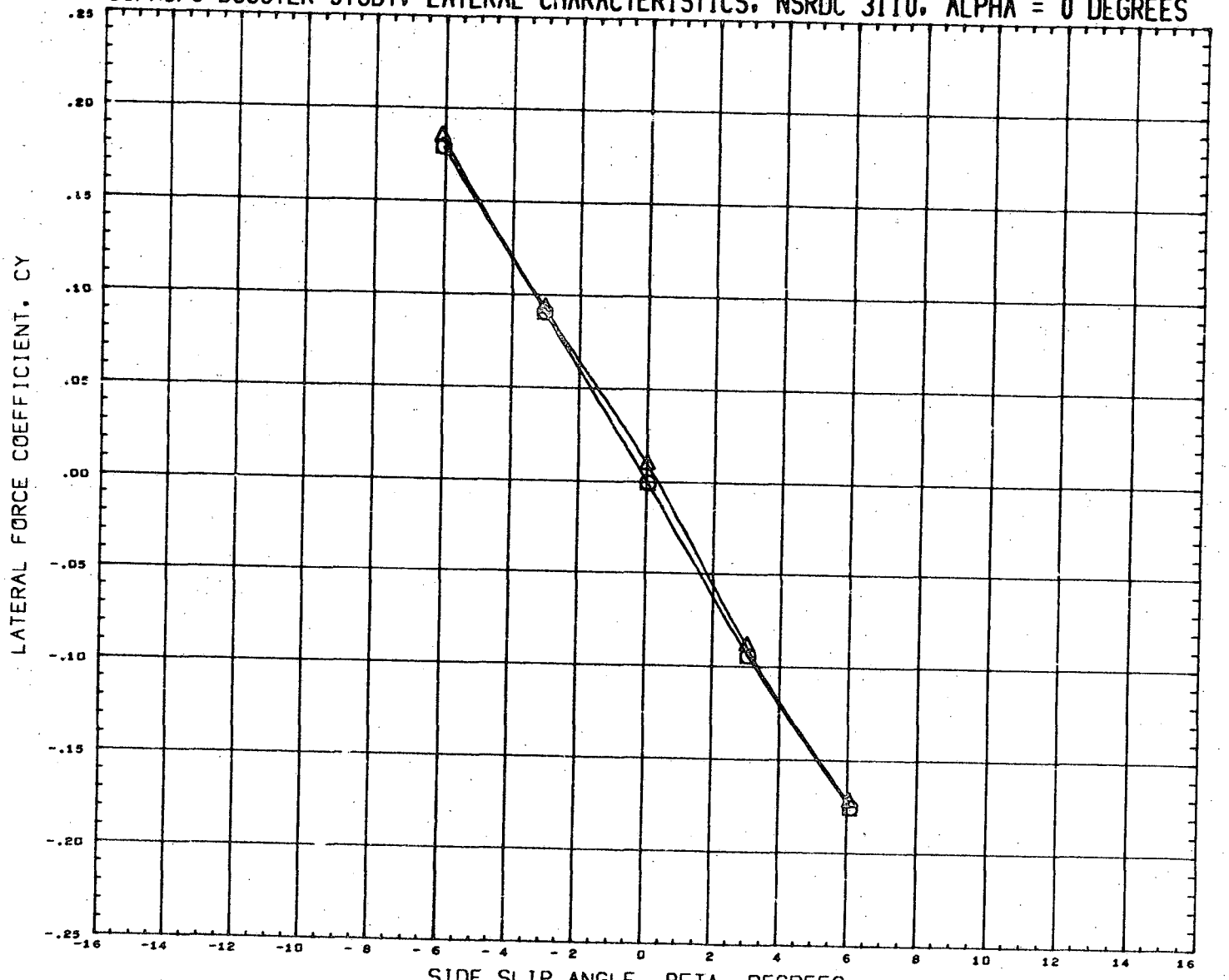



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2146) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 1.000 | 0.000 | 2.000 |
| (RN2178) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 1.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

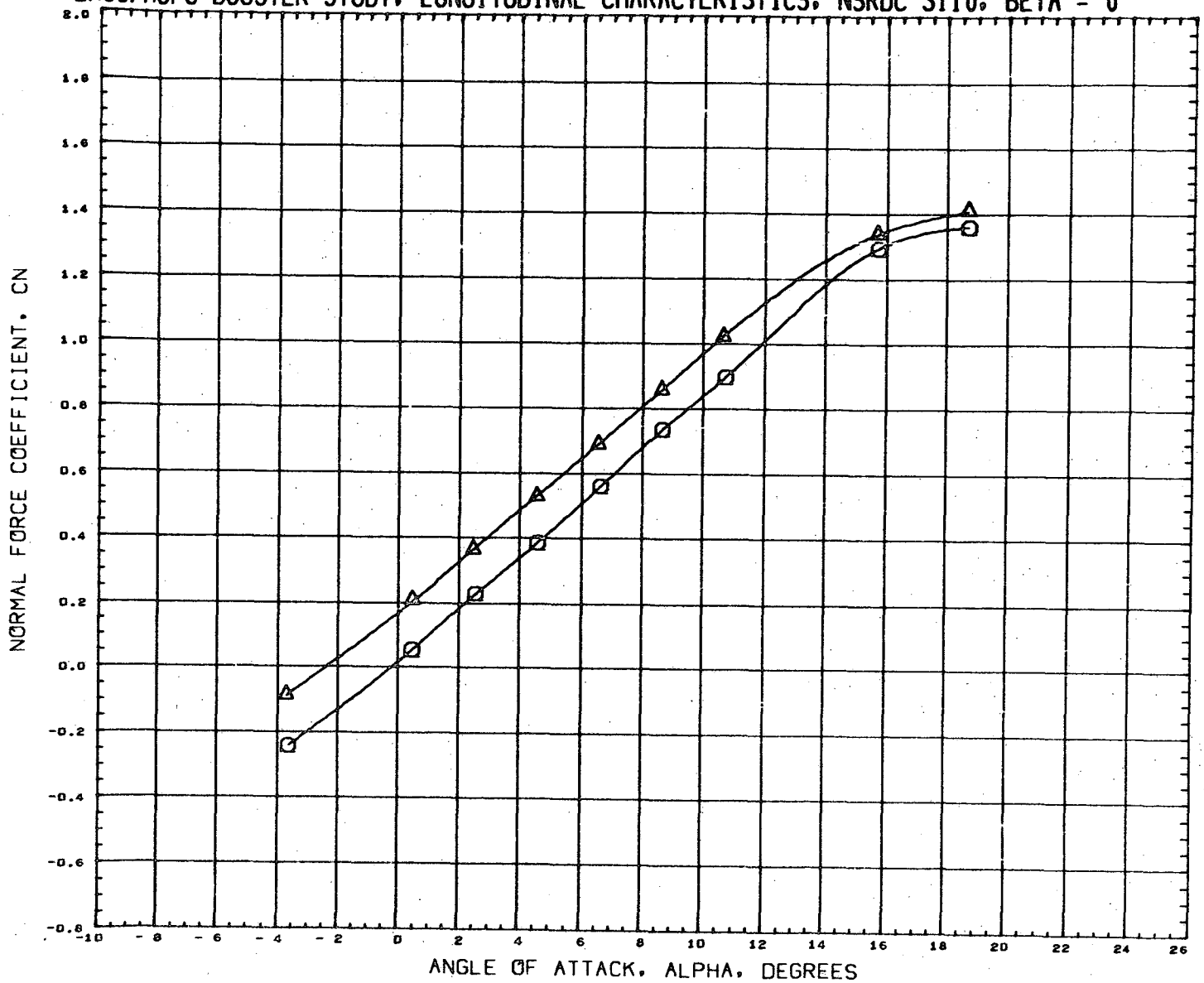



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDFOS | INCIDW | WNGFOS |
|---|---|---|---|---|---|
| (RN2146) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 1.000 | 0.000 | 2.000 |
| (RN2178) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 1.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4560 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

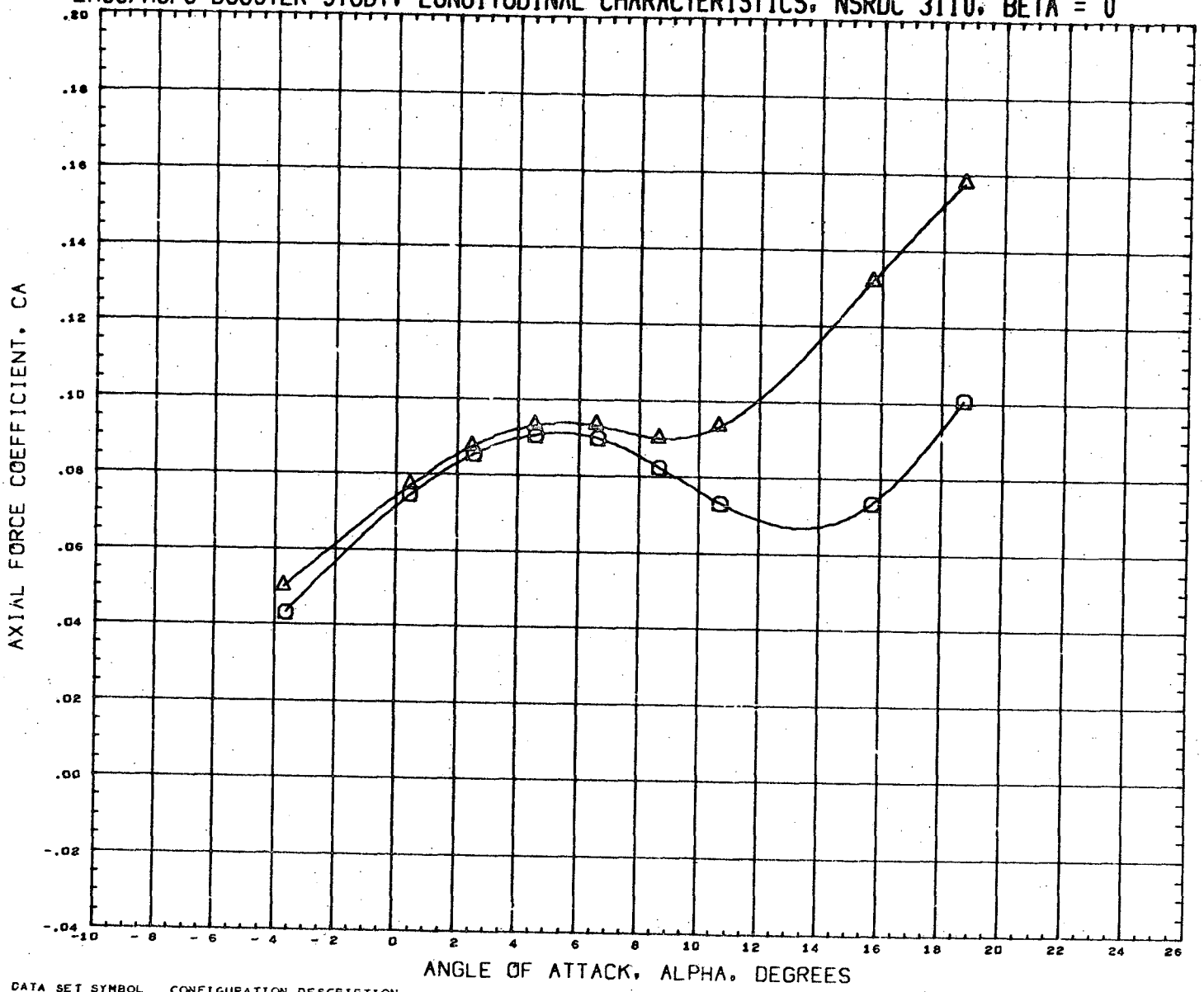



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2149) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 1.000 | 0.000 | 2.000 |
| (RN2181) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 1.000 | 3.000 | 2.000 |

MACH 0.382

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

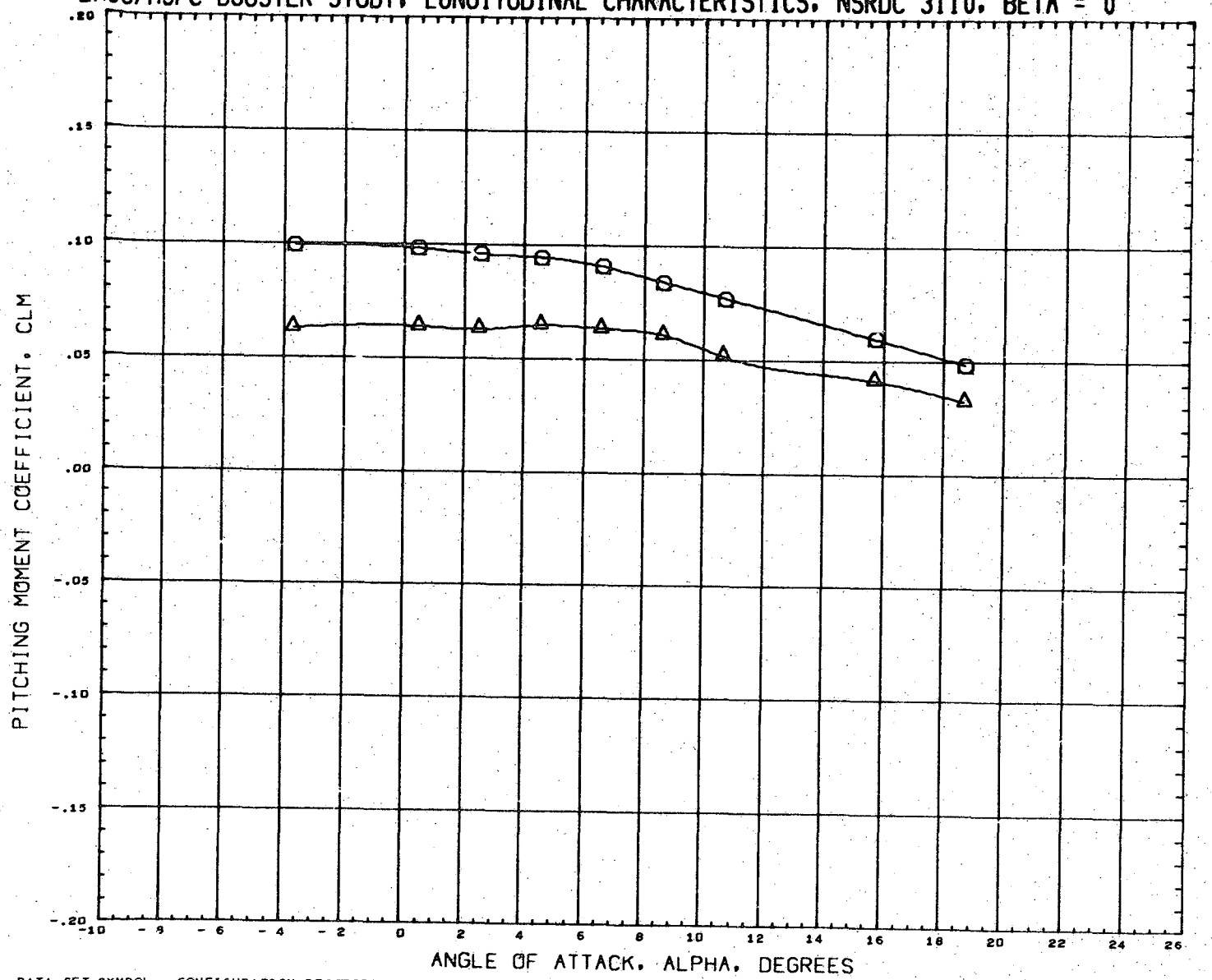



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2149) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 1.000 | 0.000 | 2.000 |
| (RN2181) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 1.000 | 3.000 | 2.000 |

MACH 0.382

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0



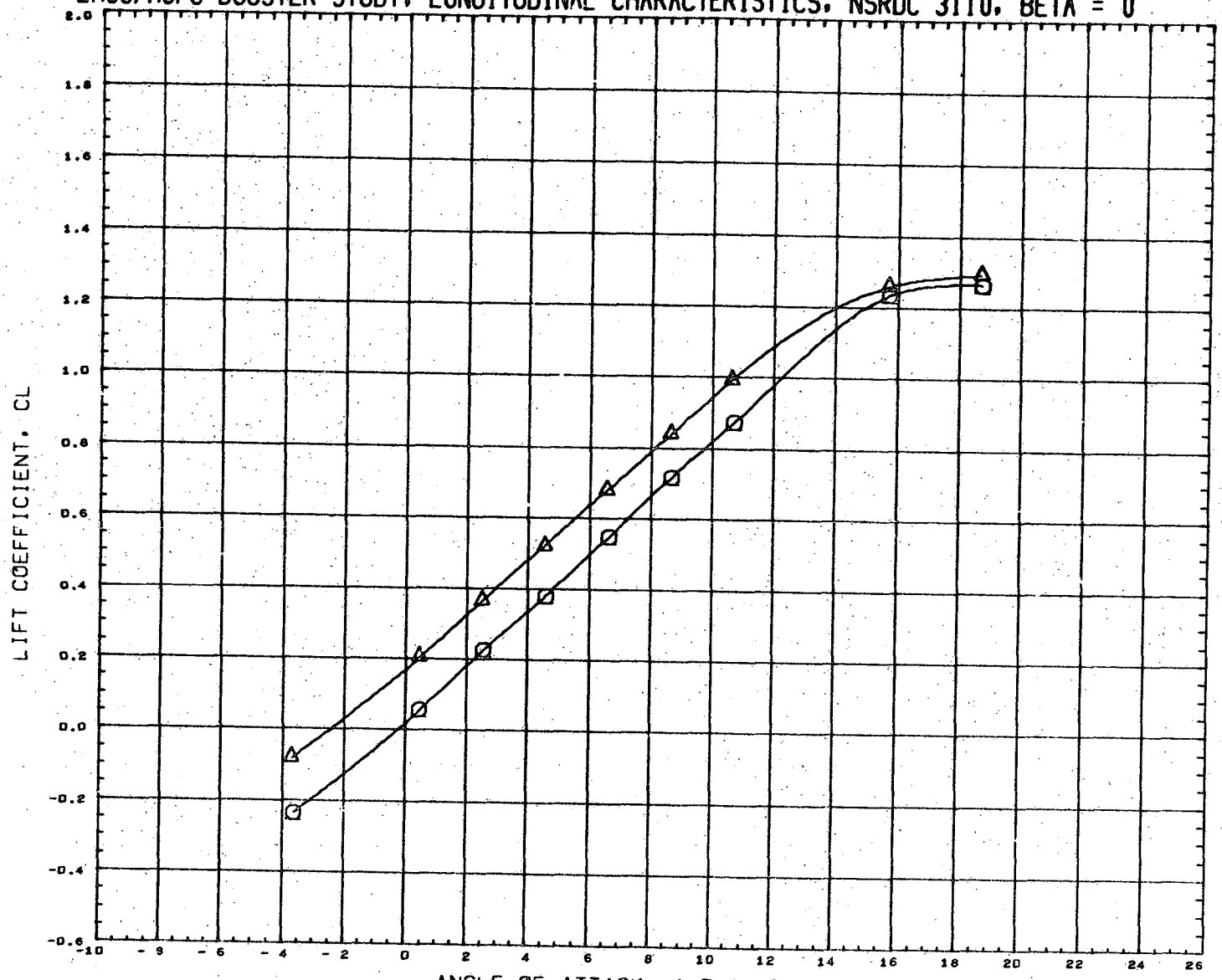

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2149) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 1.000 | 0.000 | 2.000 |
| (RN2181) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 1.000 | 3.000 | 2.000 |

MACH 0.382

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

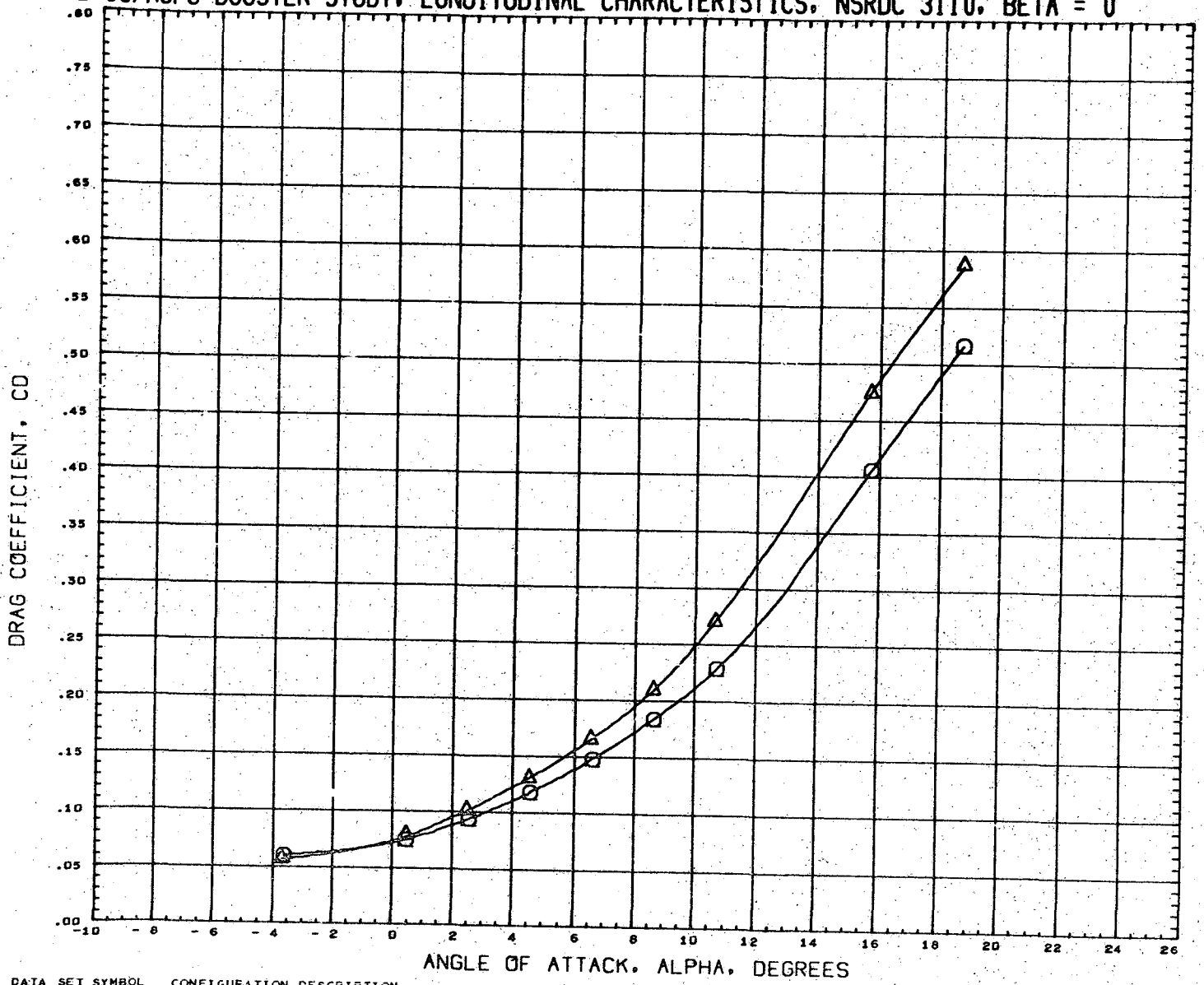



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2149) | ○ | NSRDC-311G,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 1.000 | 0.000 | 2.000 |
| (RN2181) | △ | NSRDC-311D,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 1.000 | 3.000 | 2.000 |

MACH 0.382

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

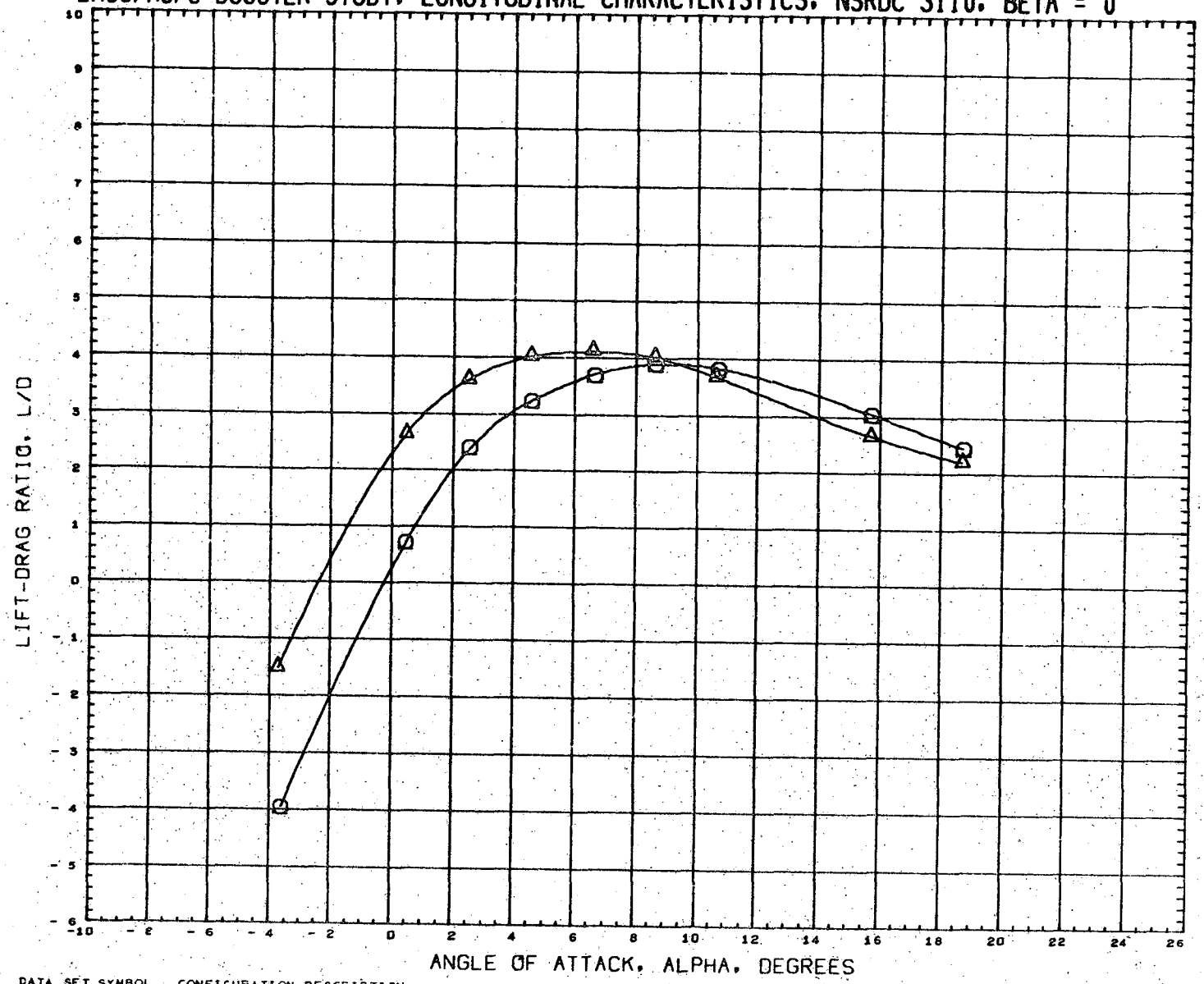



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2149) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 1.000 | 0.000 | 2.000 |
| (RN2181) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 1.000 | 3.000 | 2.000 |

MACH 0.382

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

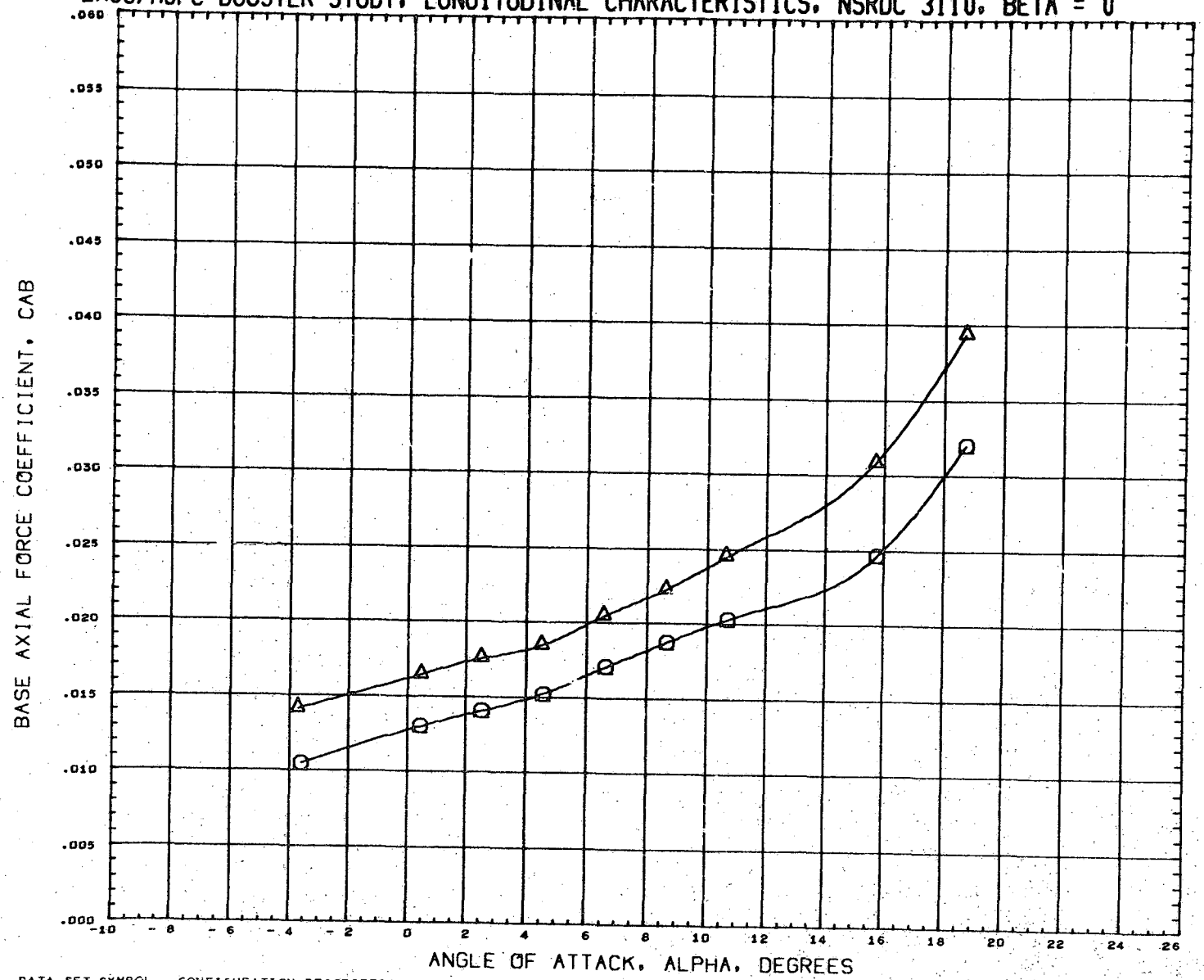



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2149) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 1.000 | 0.000 | 2.000 |
| (RN2181) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 1.000 | 3.000 | 2.000 |

MACH 0.382

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

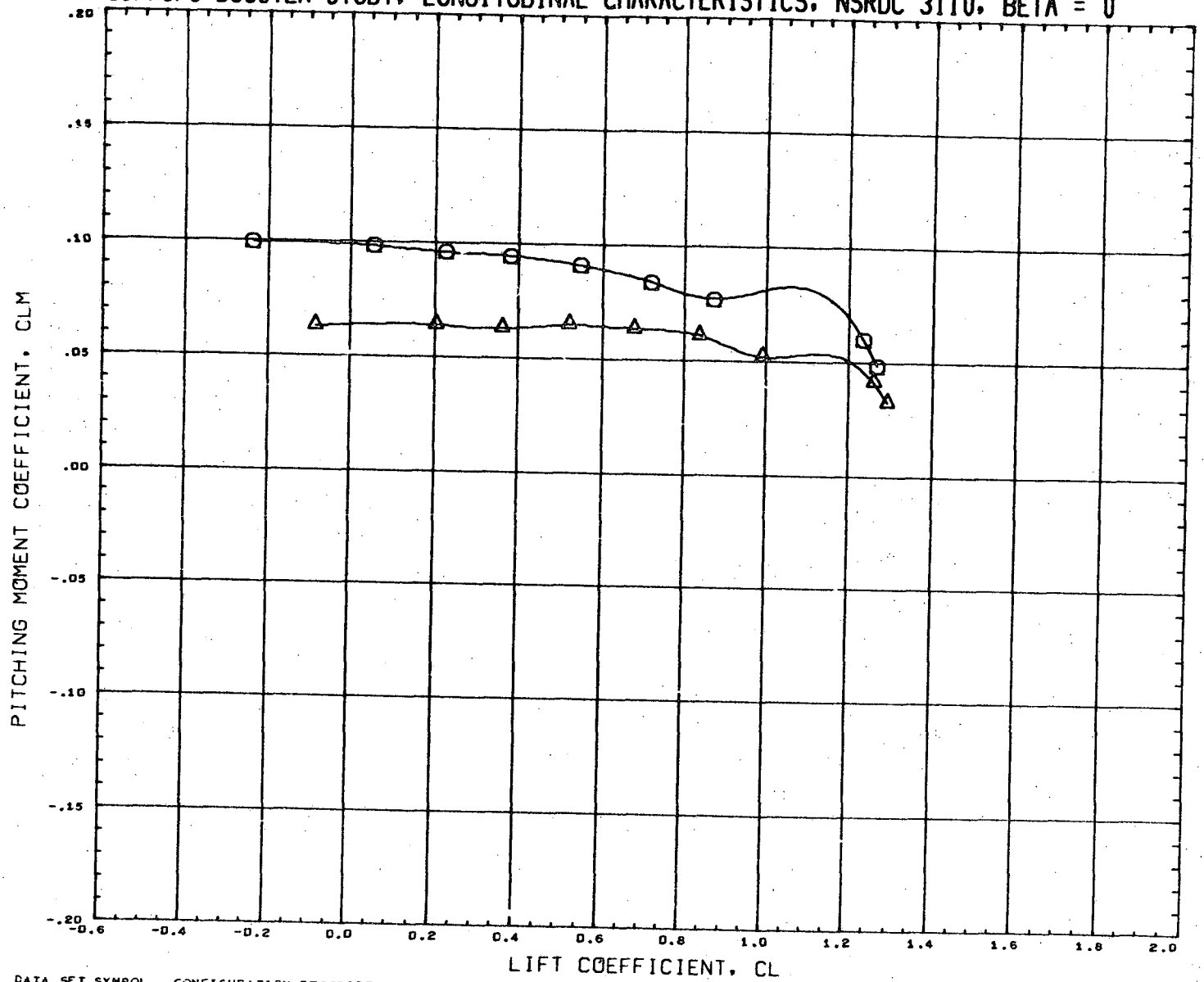



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2149) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 1.000 | 0.000 | 2.000 |
| (RN2181) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 1.000 | 3.000 | 2.000 |

MACH 0.382

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

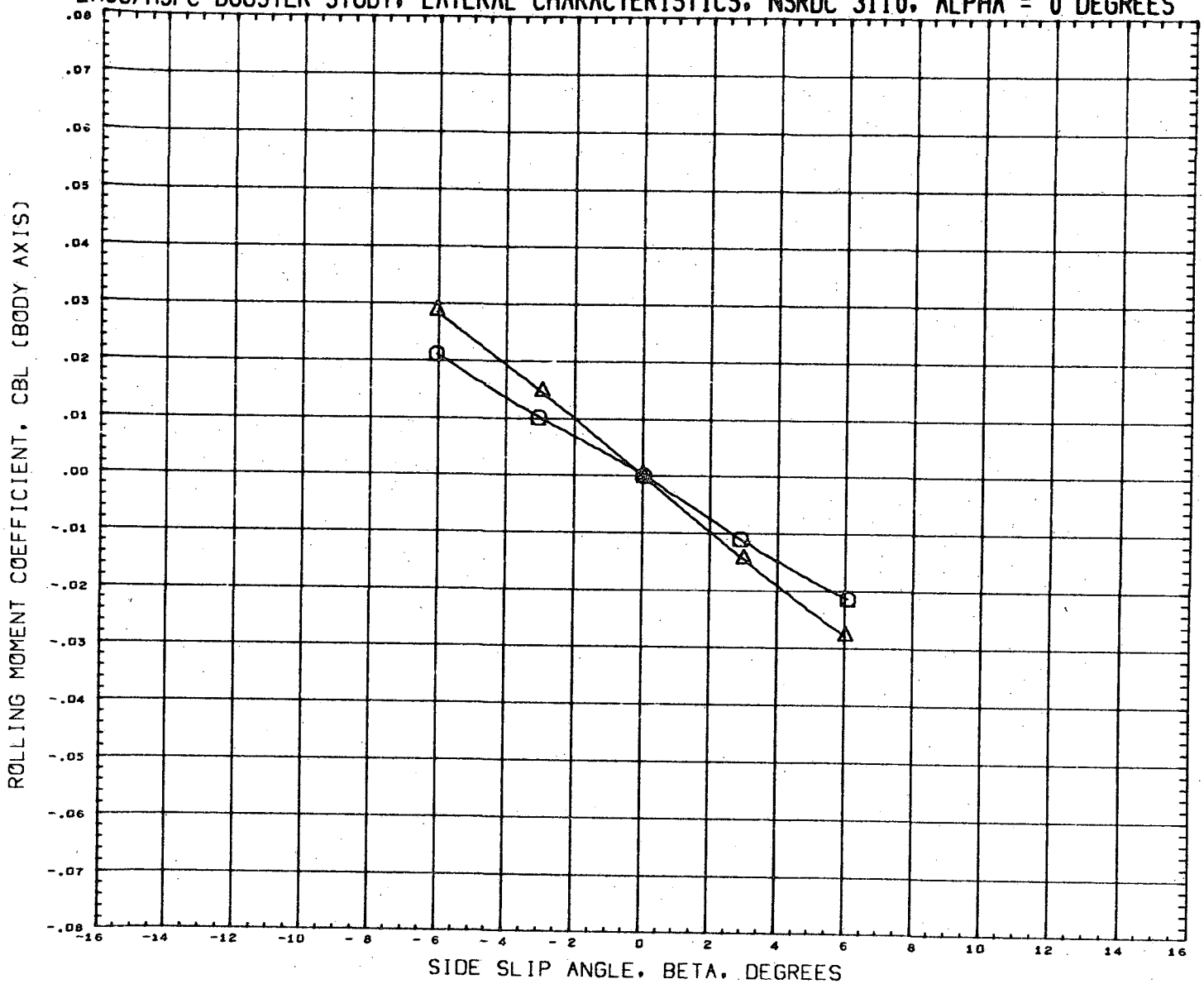



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2149) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 1.000 | 0.000 | 2.000 |
| (RN2181) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 1.000 | 3.000 | 2.000 |

MACH 0.382

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| DREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

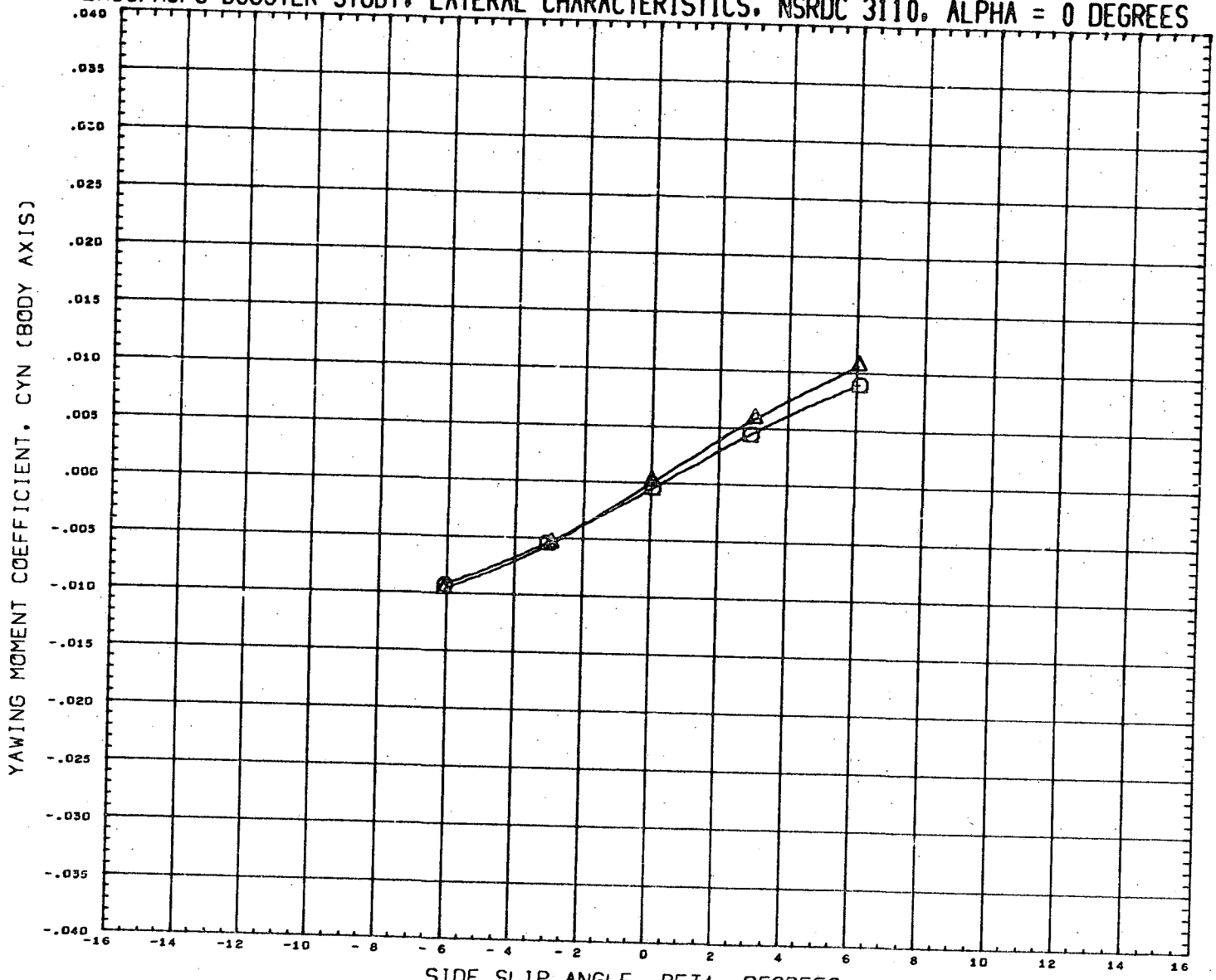



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2150) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 1.000 | 0.000 | 2.000 |
| (RN2182) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 1.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

LMSC/MSFC BOOSTER STUDY. LATERAL CHARACTERISTICS. NSRDC 3110. ALPHA = 0 DEGREES

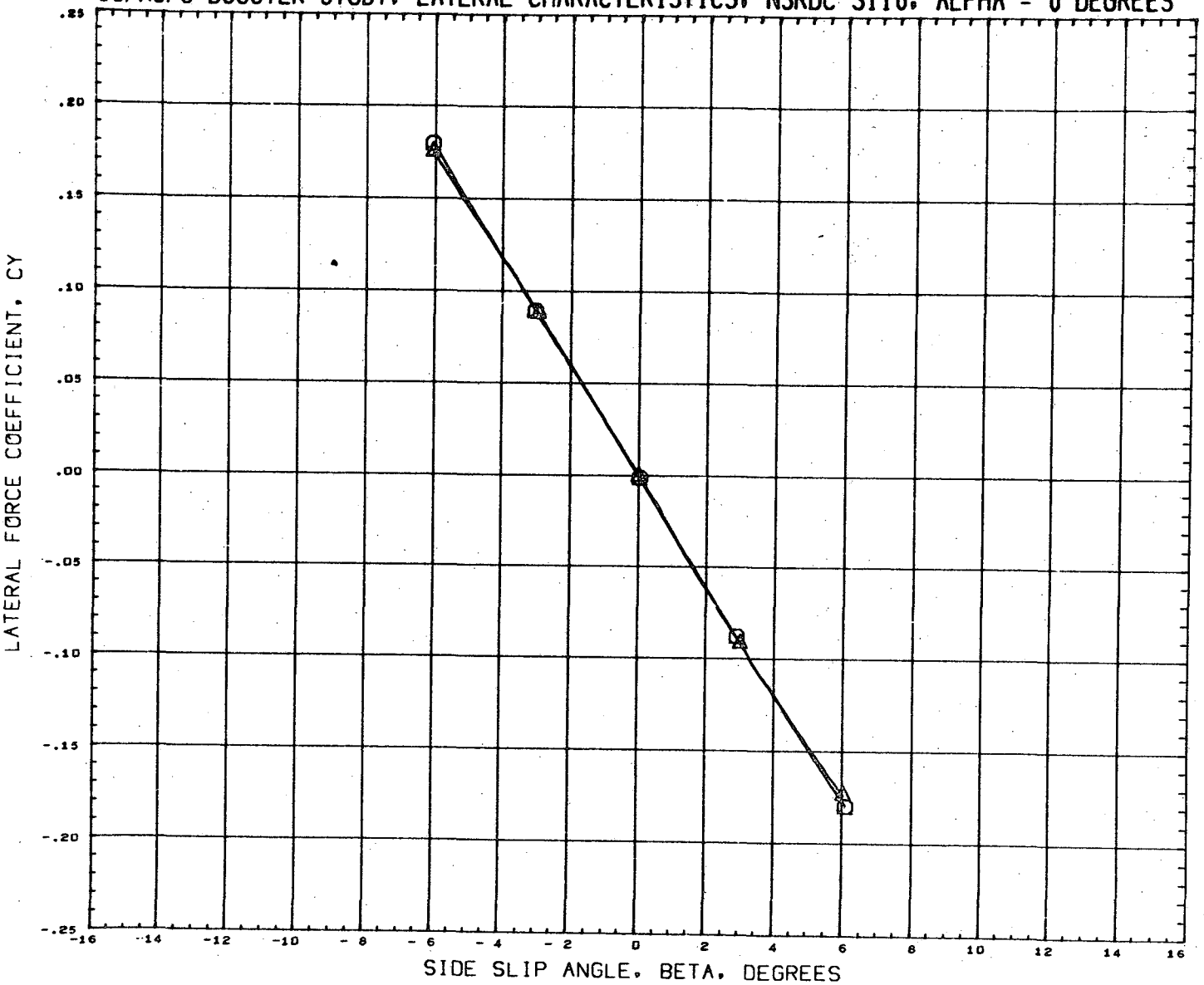



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2150) ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 1.000 | 0.000 | 2.000 |
| (RN2182) △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 1.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

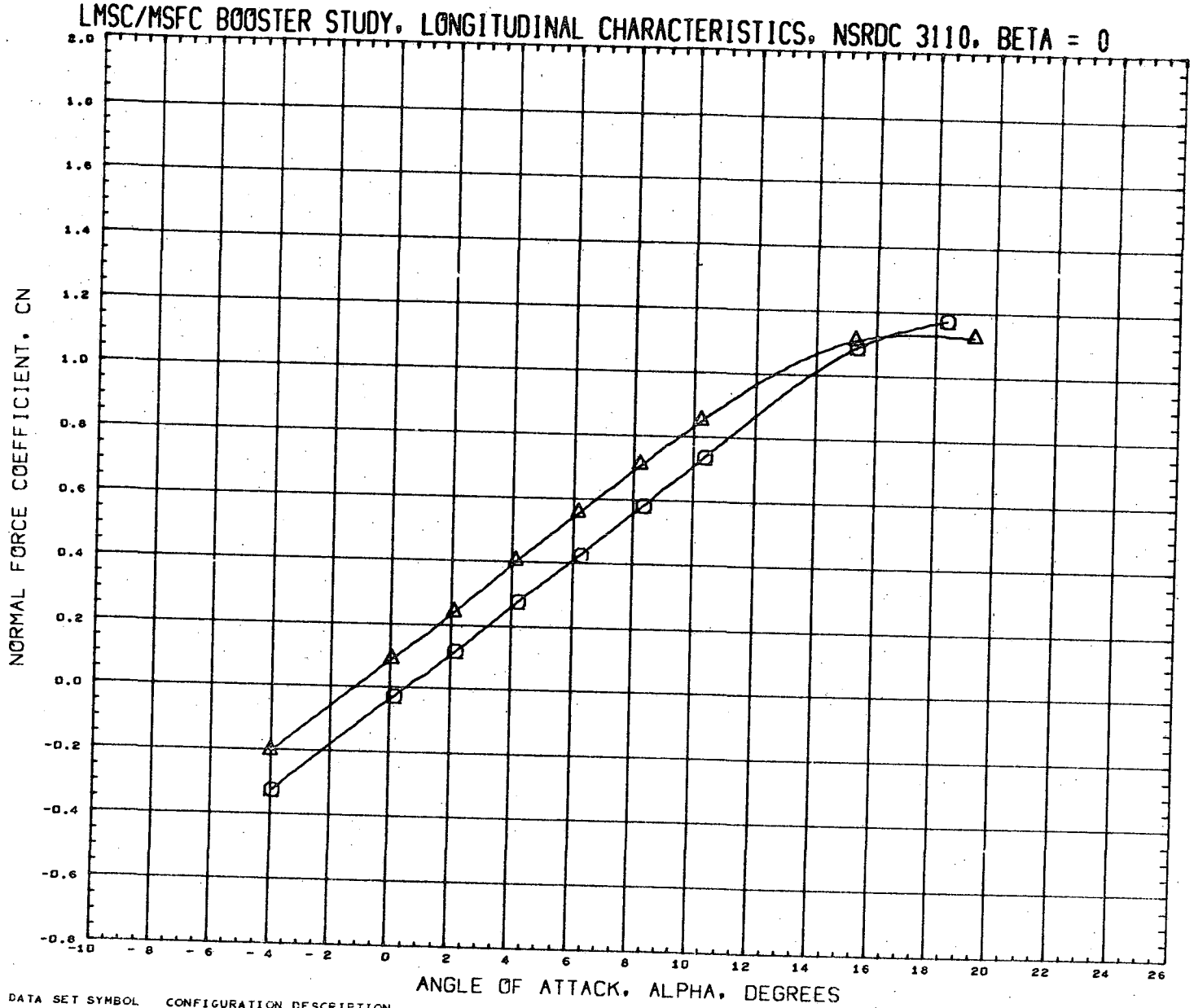
# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2150) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 1.000 | 0.000 | 2.000 |
| (RN2182) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 1.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

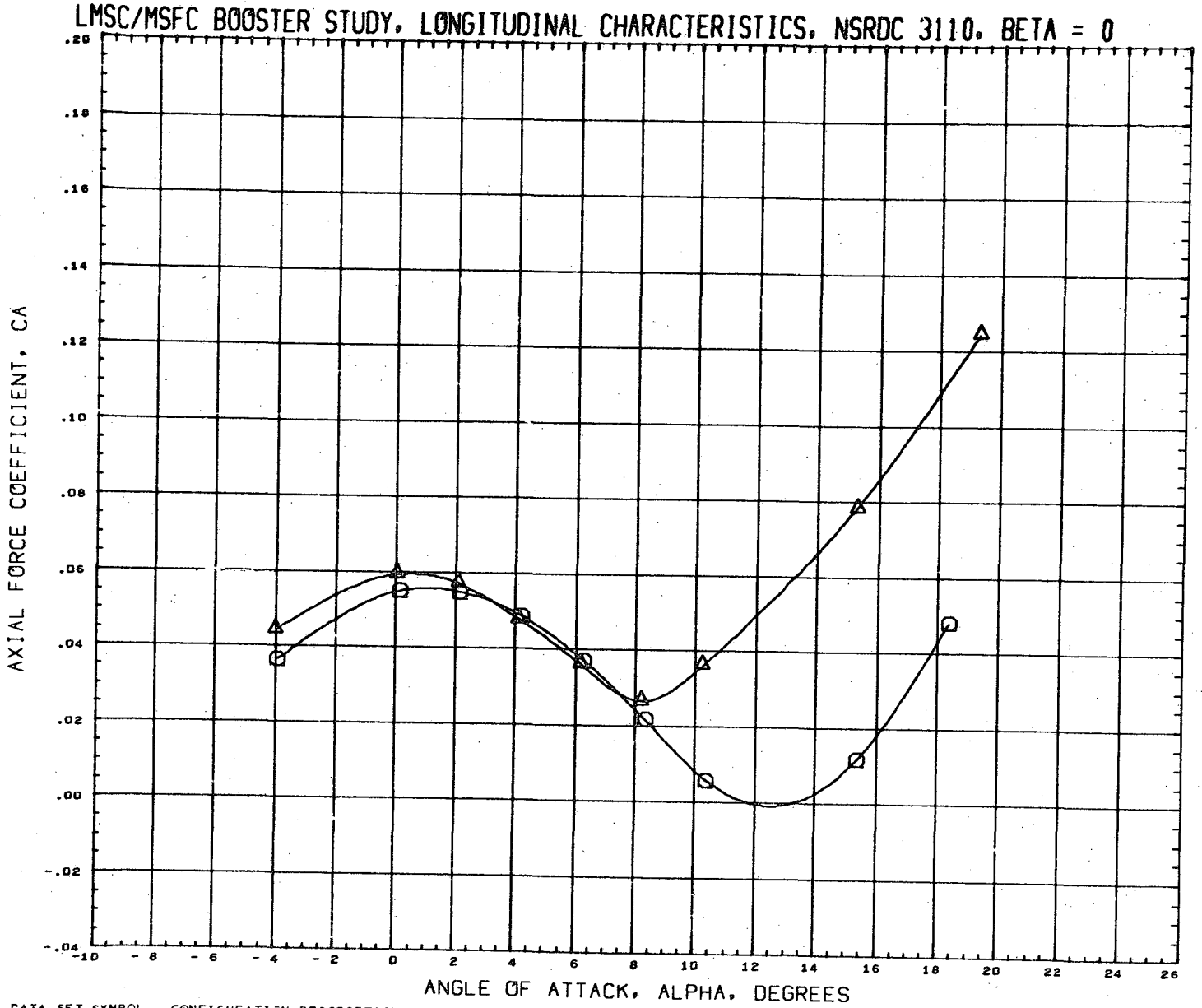



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION |
|---|---|
| (RN2153) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 |
| (RN2185) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 |

| INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|
| 3.000 | 2.000 | 0.000 | 2.000 |
| 3.000 | 2.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

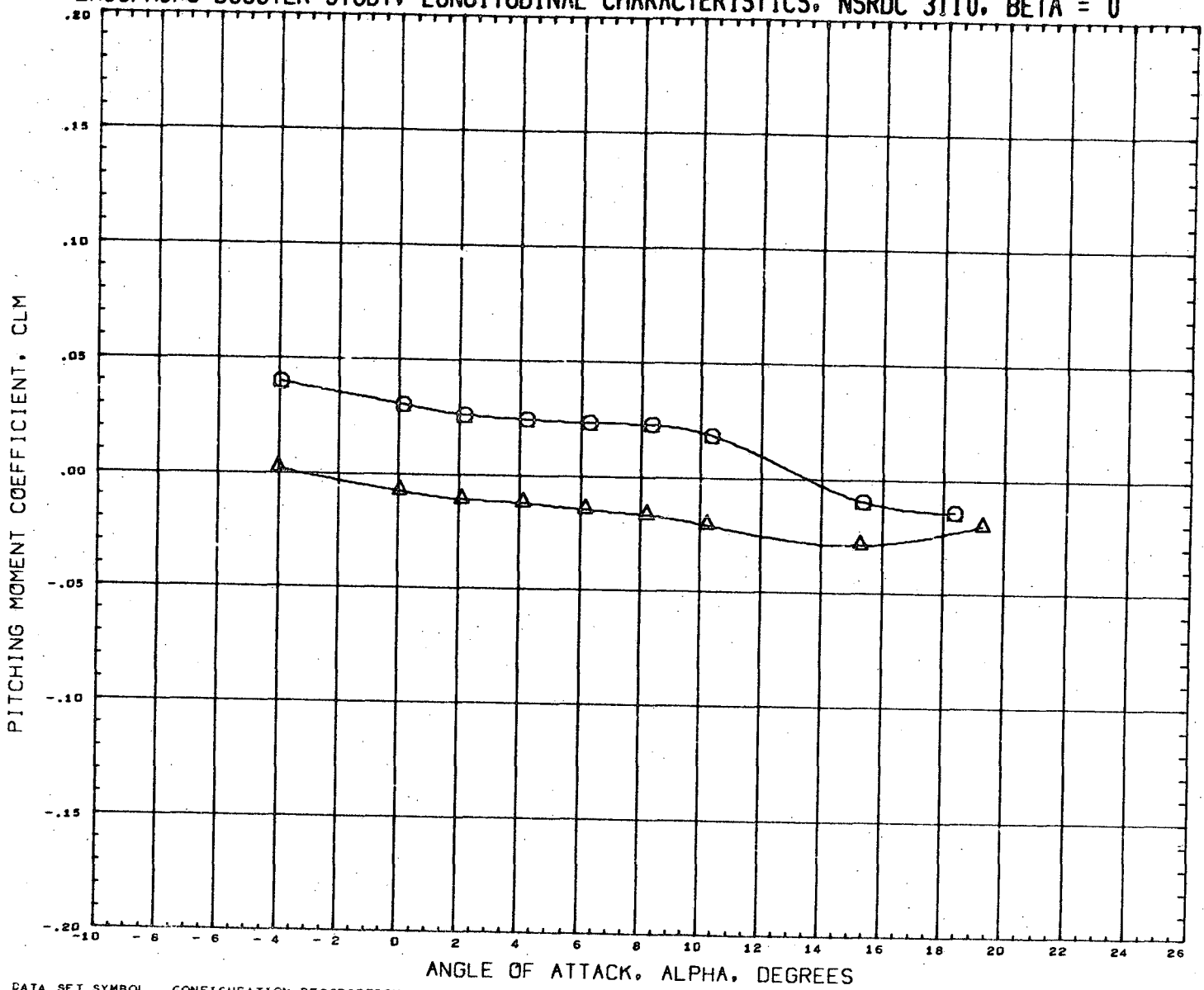



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2153) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 2.000 | 0.000 | 2.000 |
| (RN2185) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 2.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRF | 31.1400 | INCHES |
| YMRF | 0.0000 | INCHES |
| ZMRF | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

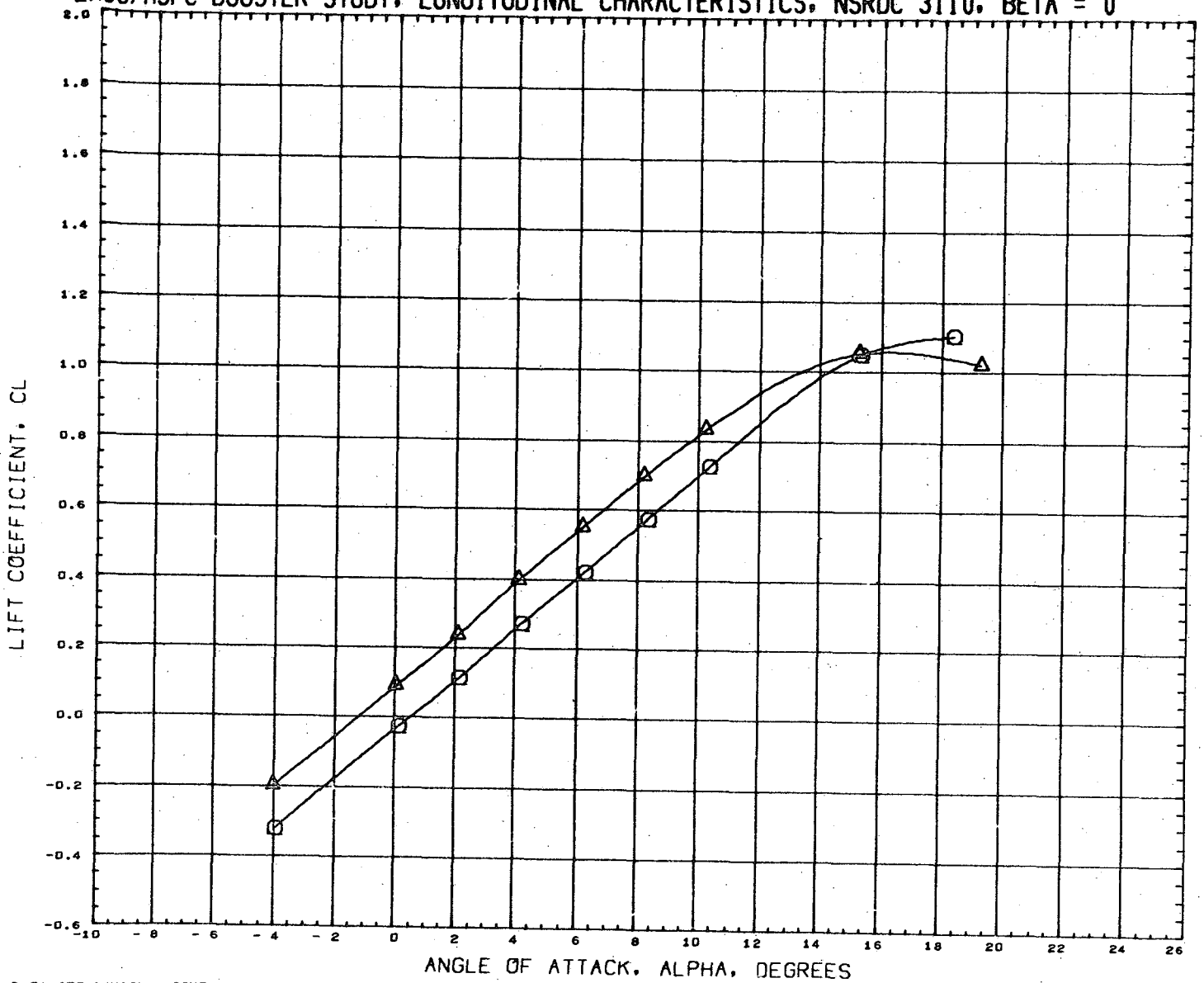



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2153) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 2.000 | 0.000 | 2.000 |
| (RN2185) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 2.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

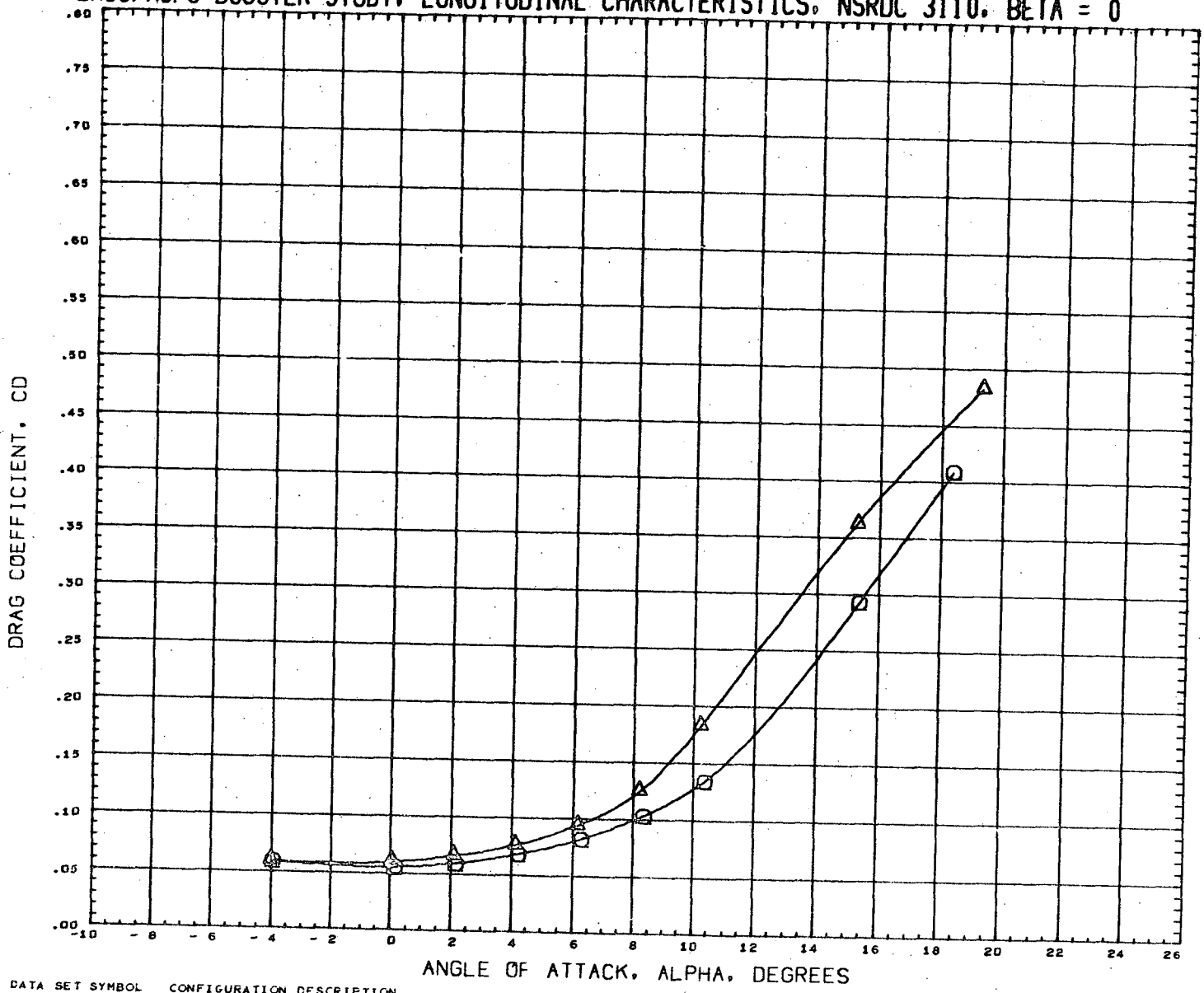



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2153) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 2.000 | 0.000 | 2.000 |
| (RN2185) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 2.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

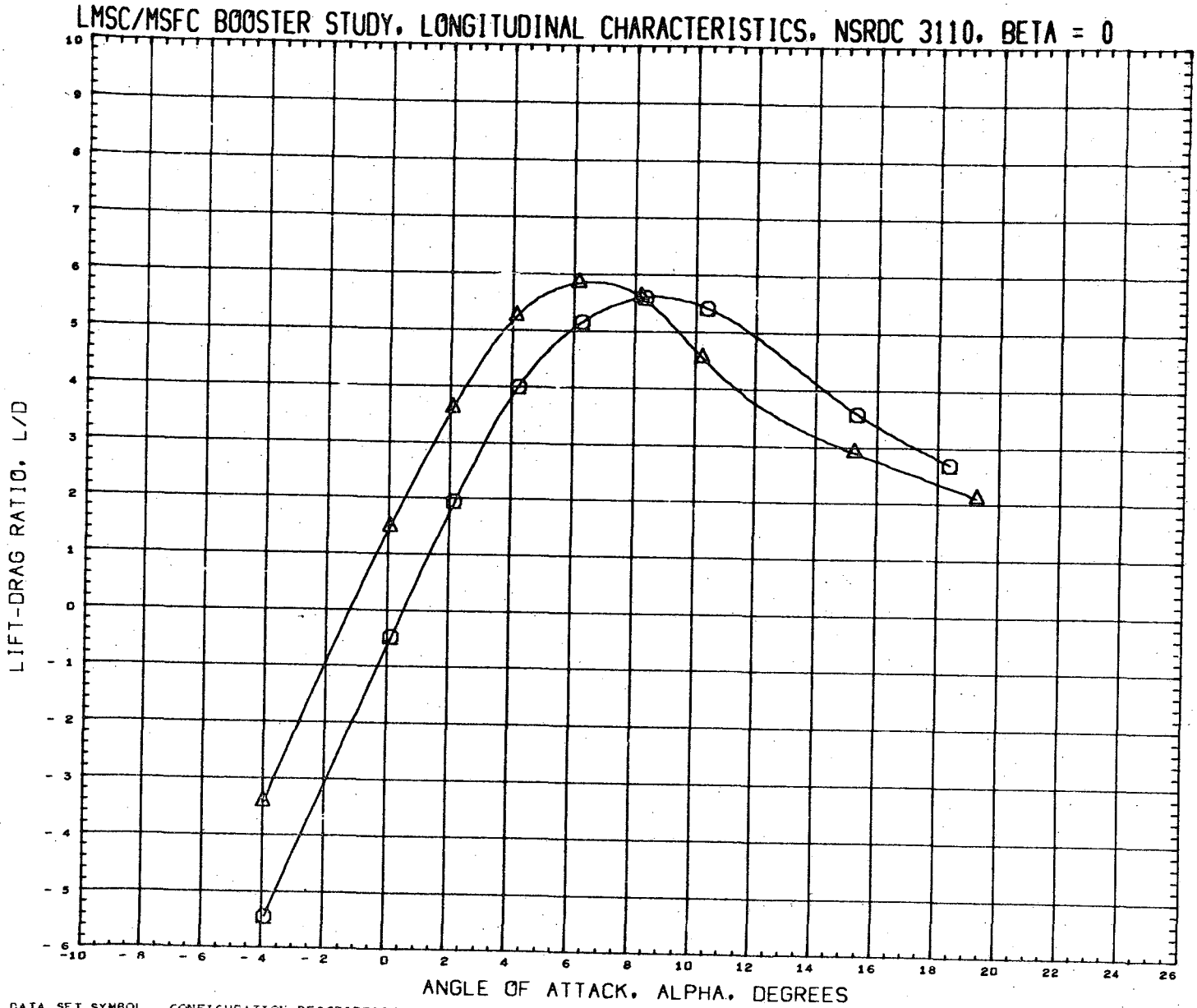
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDFOS | INCIDW | WNGFOS |
|---|---|---|---|---|---|
| (RN2153) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 2.000 | 0.000 | 2.000 |
| (RN2185) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 2.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |



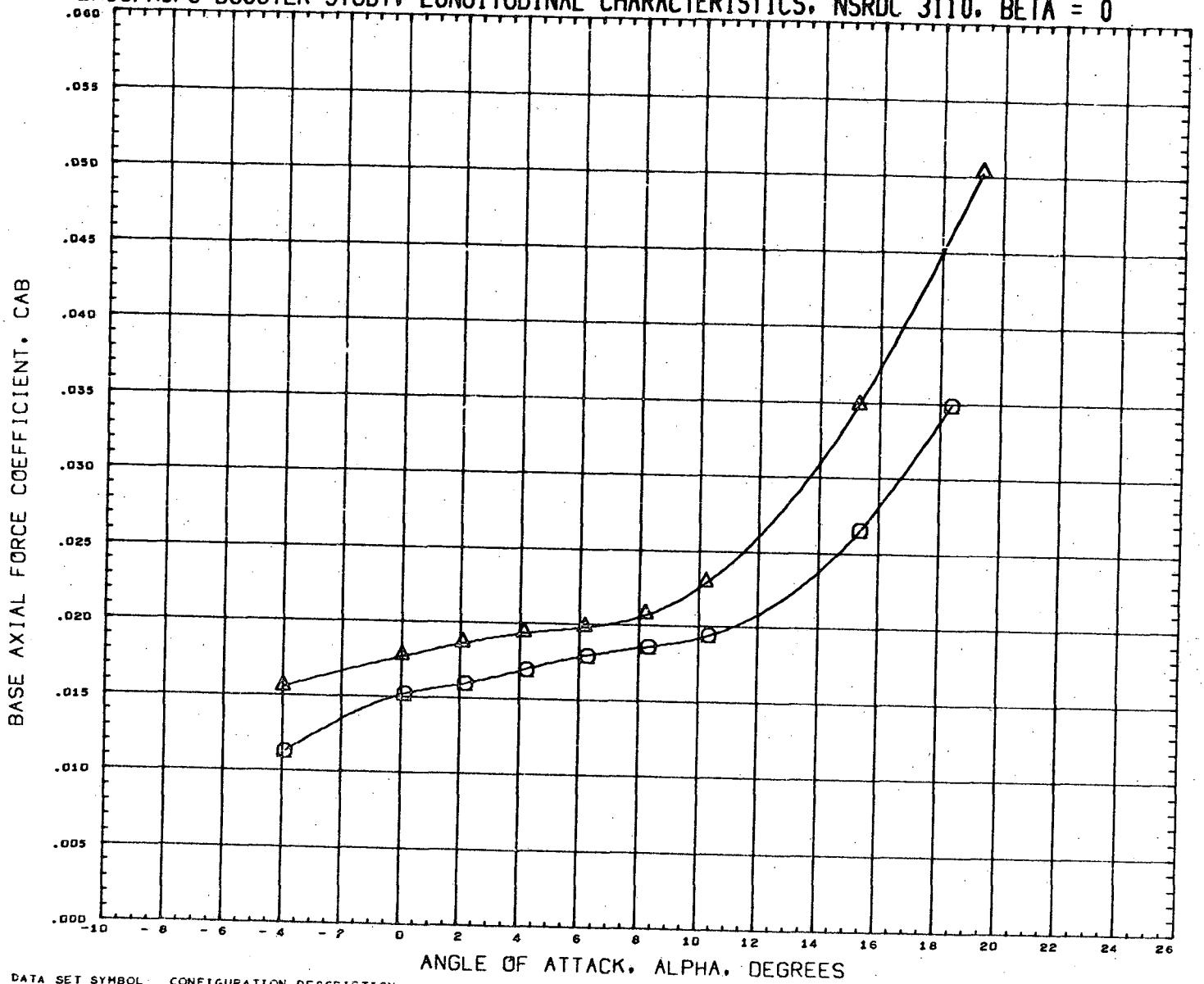

| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2153) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 2.000 | 0.000 | 2.000 |
| (RN2185) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 2.000 | 3.000 | 2.000 |

MACH 0.381

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

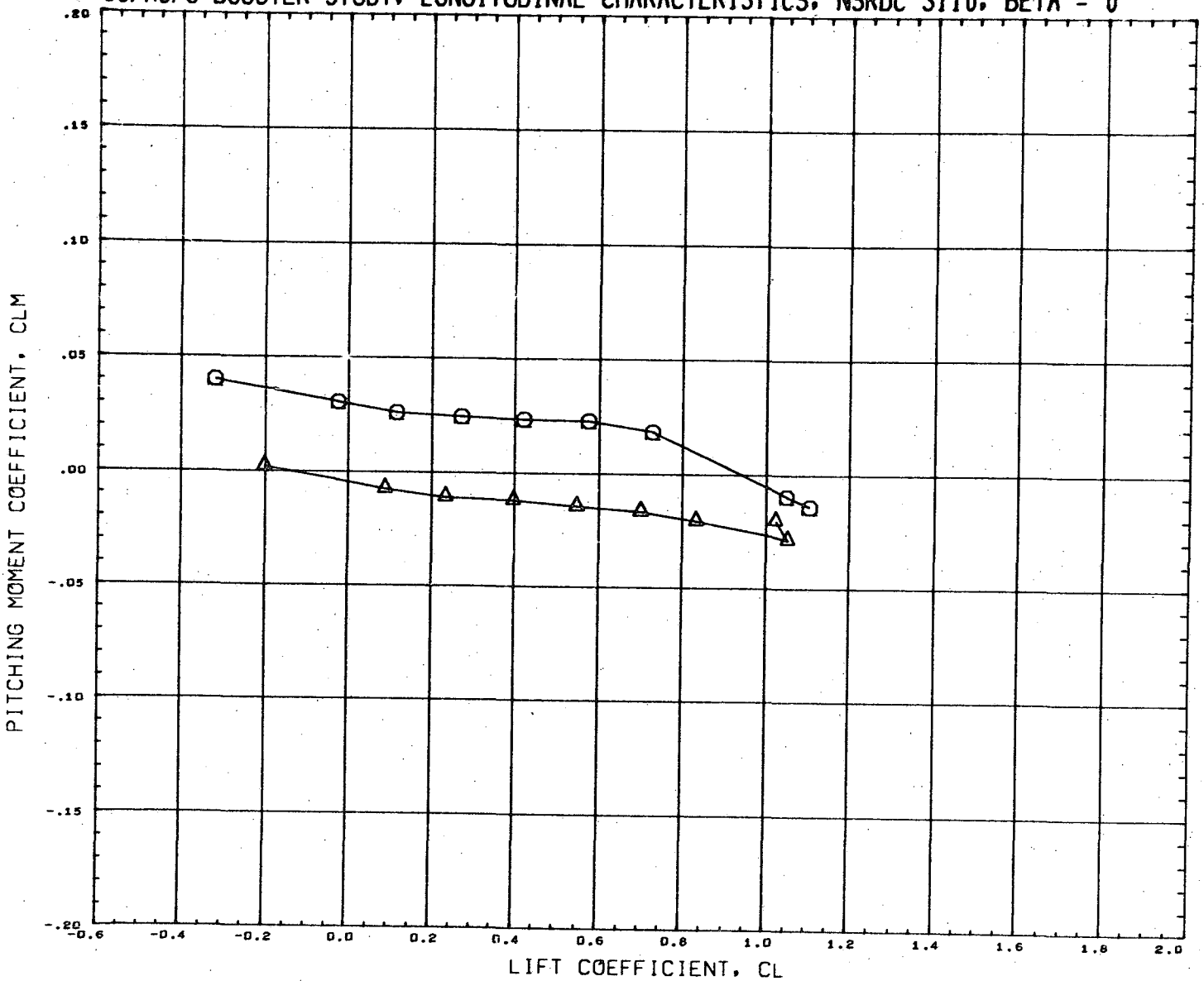



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2153) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 2.000 | 0.000 | 2.000 |
| (RN2185) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 2.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

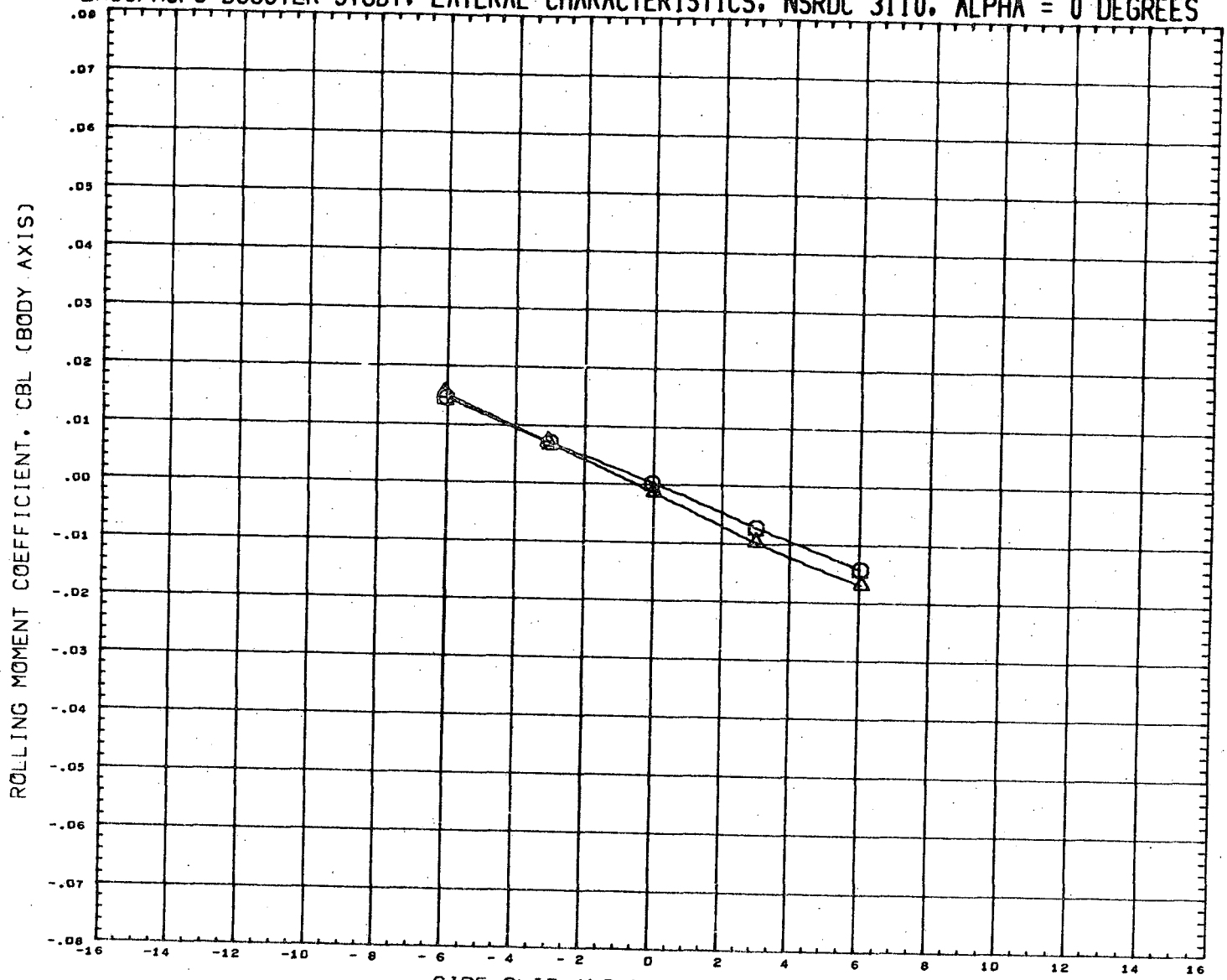



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2153) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 2.000 | 0.000 | 2.000 |
| (RN2185) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 2.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

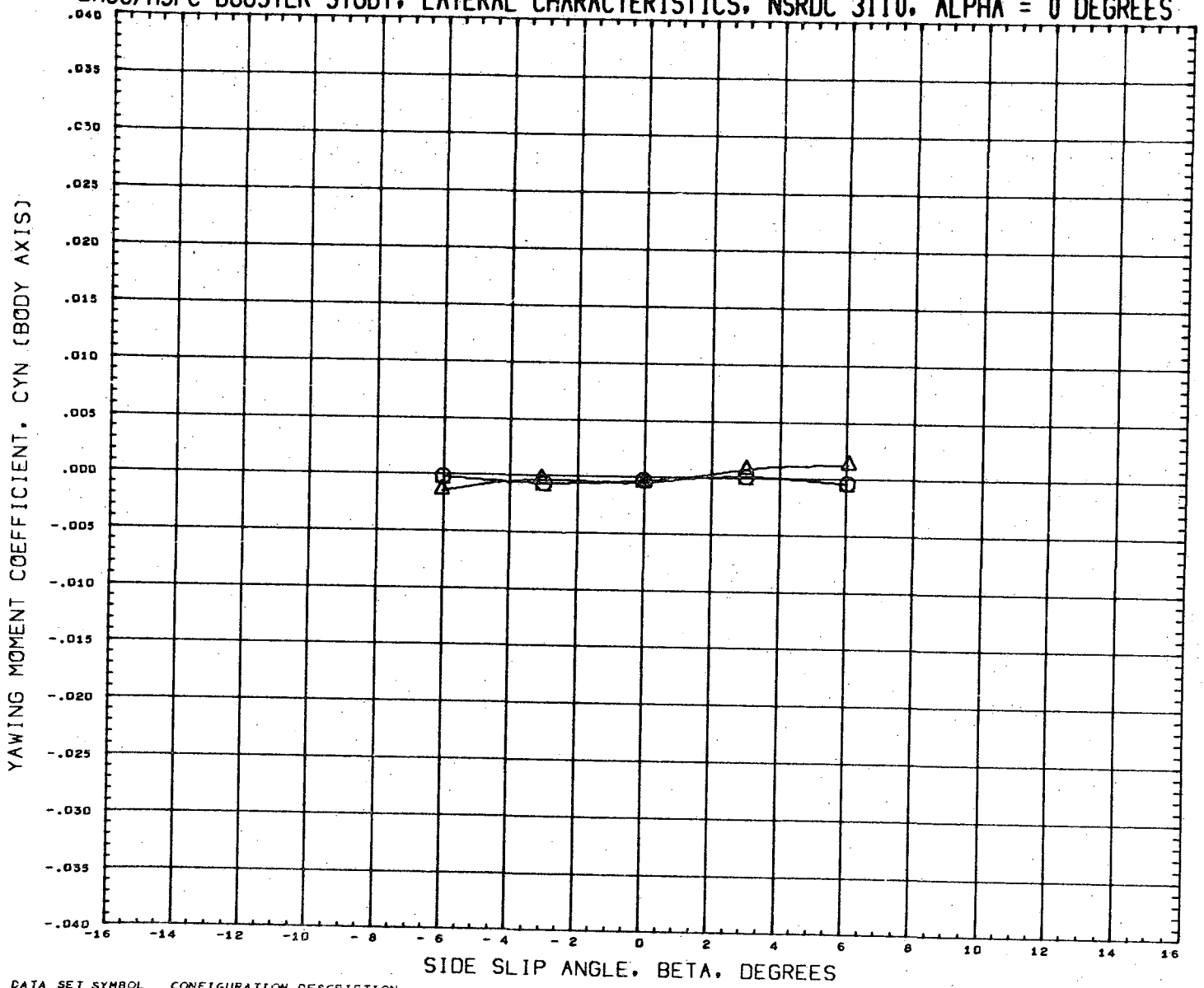



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2154) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 2.000 | 0.000 | 2.000 |
| (RN2186) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 2.000 | 3.000 | 2.000 |

MACH 0.382

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

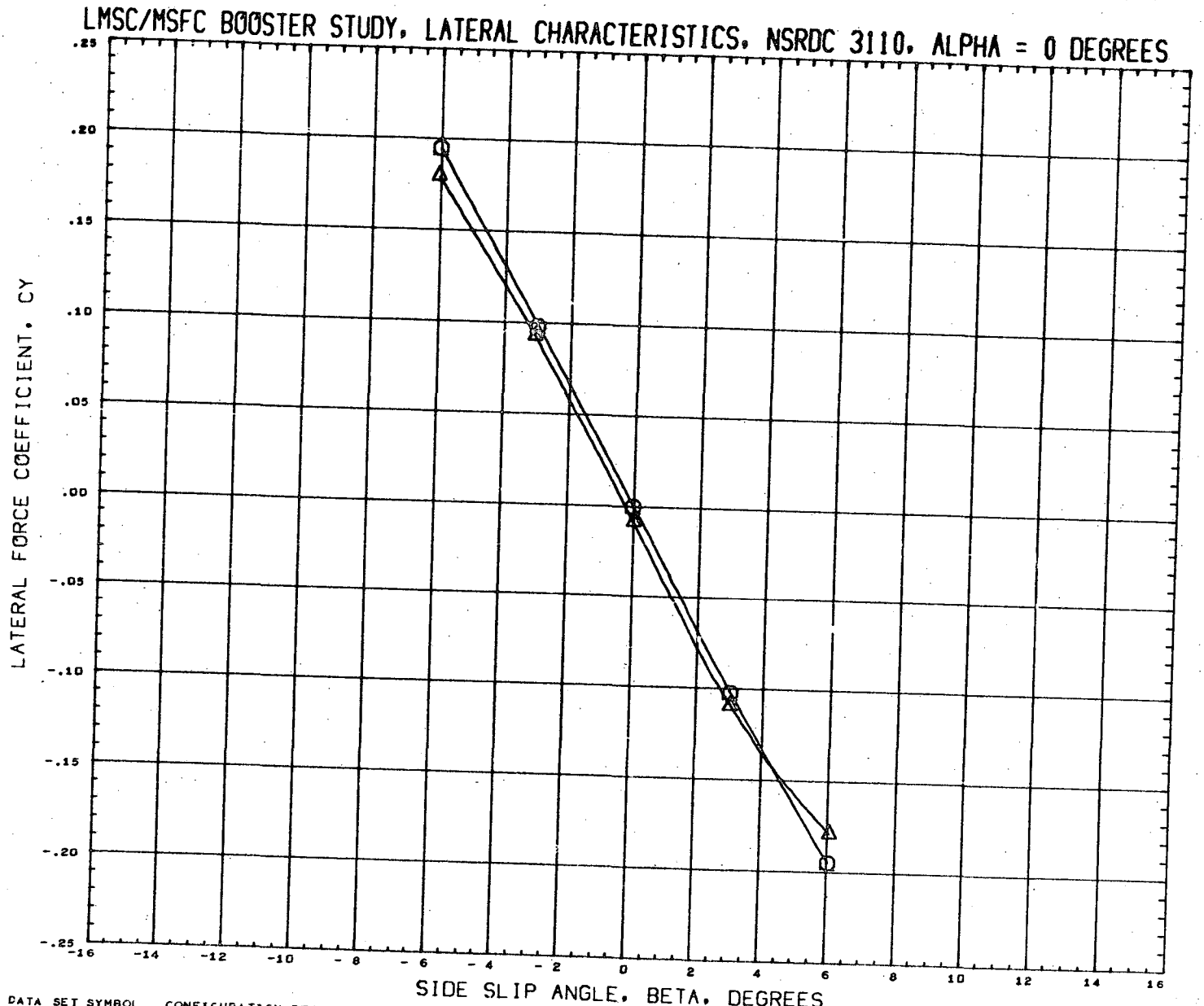
# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES




| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDFOS | INCIDW | WNGFOS |
|---|---|---|---|---|---|
| (RN2154) ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 2.000 | 0.000 | 2.000 |
| (RN2186) △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 2.000 | 3.000 | 2.000 |

MACH 0.382

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | FERCNT |

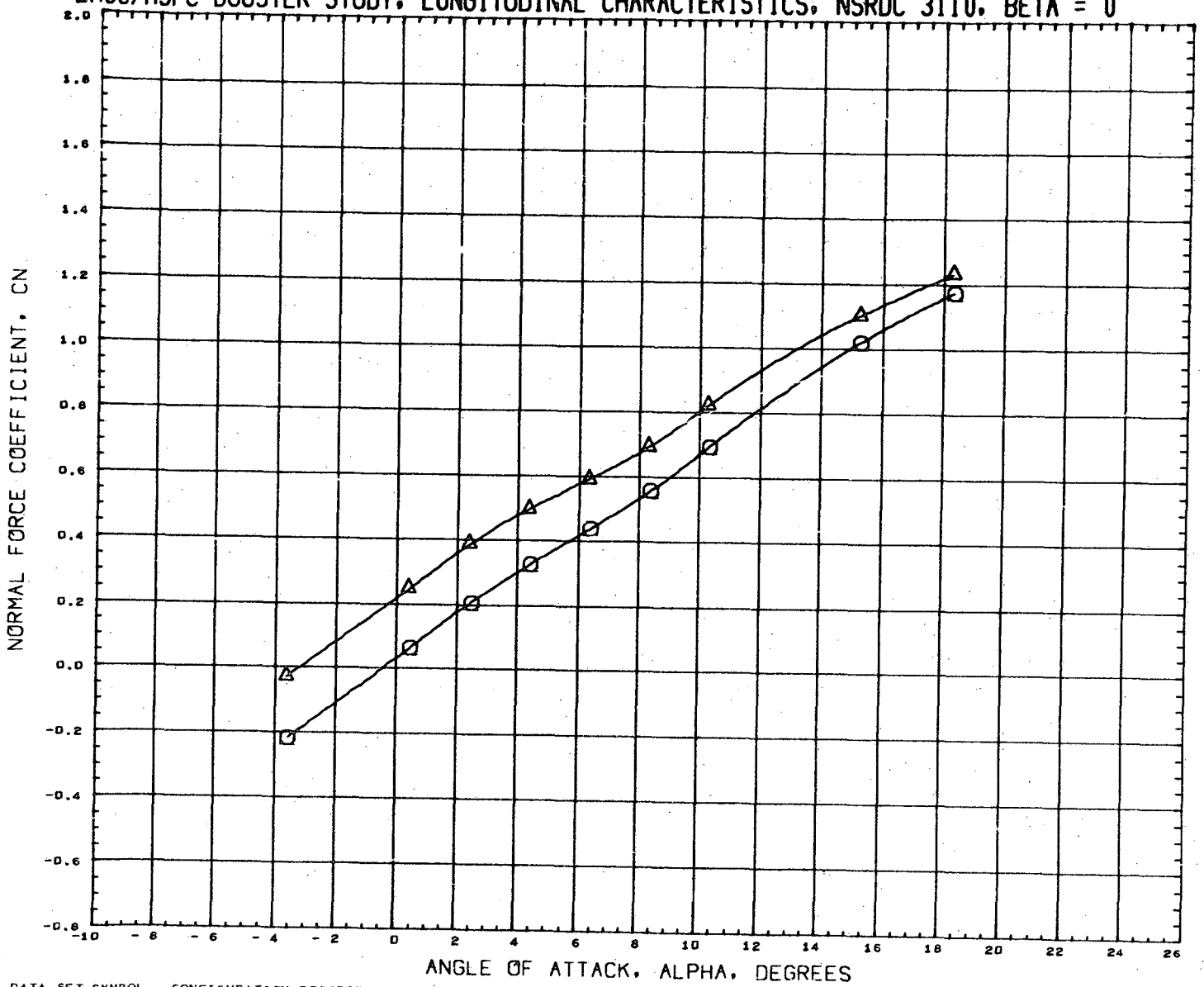



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2154) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 2.000 | 0.000 | 2.000 |
| (RN2186) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 3.000 | 2.000 | 3.000 | 2.000 |

MACH 0.382

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0



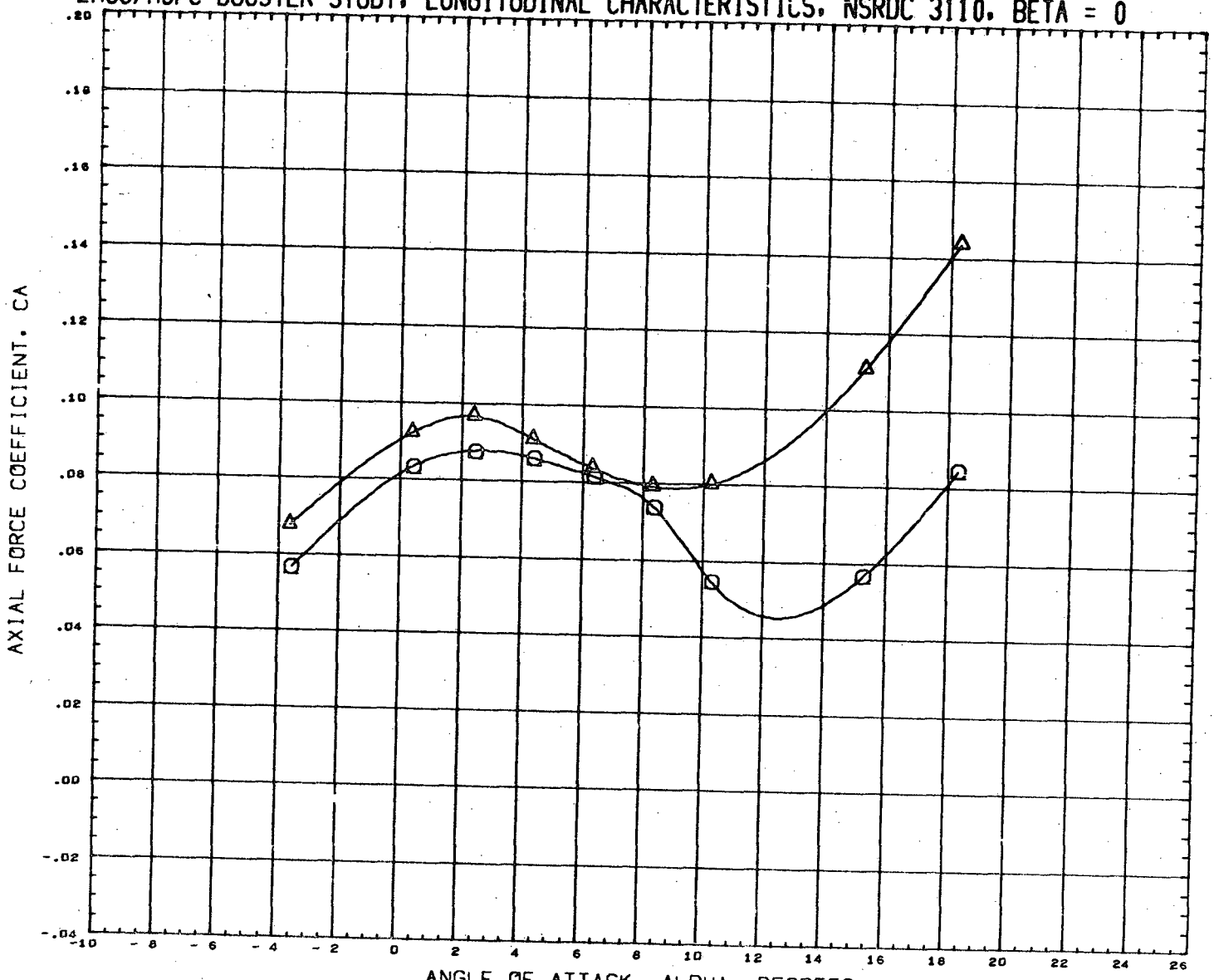

| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2157) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 2.000 | 0.000 | 2.000 |
| (RN2189) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 2.000 | 3.000 | 2.000 |

MACH 0.381

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

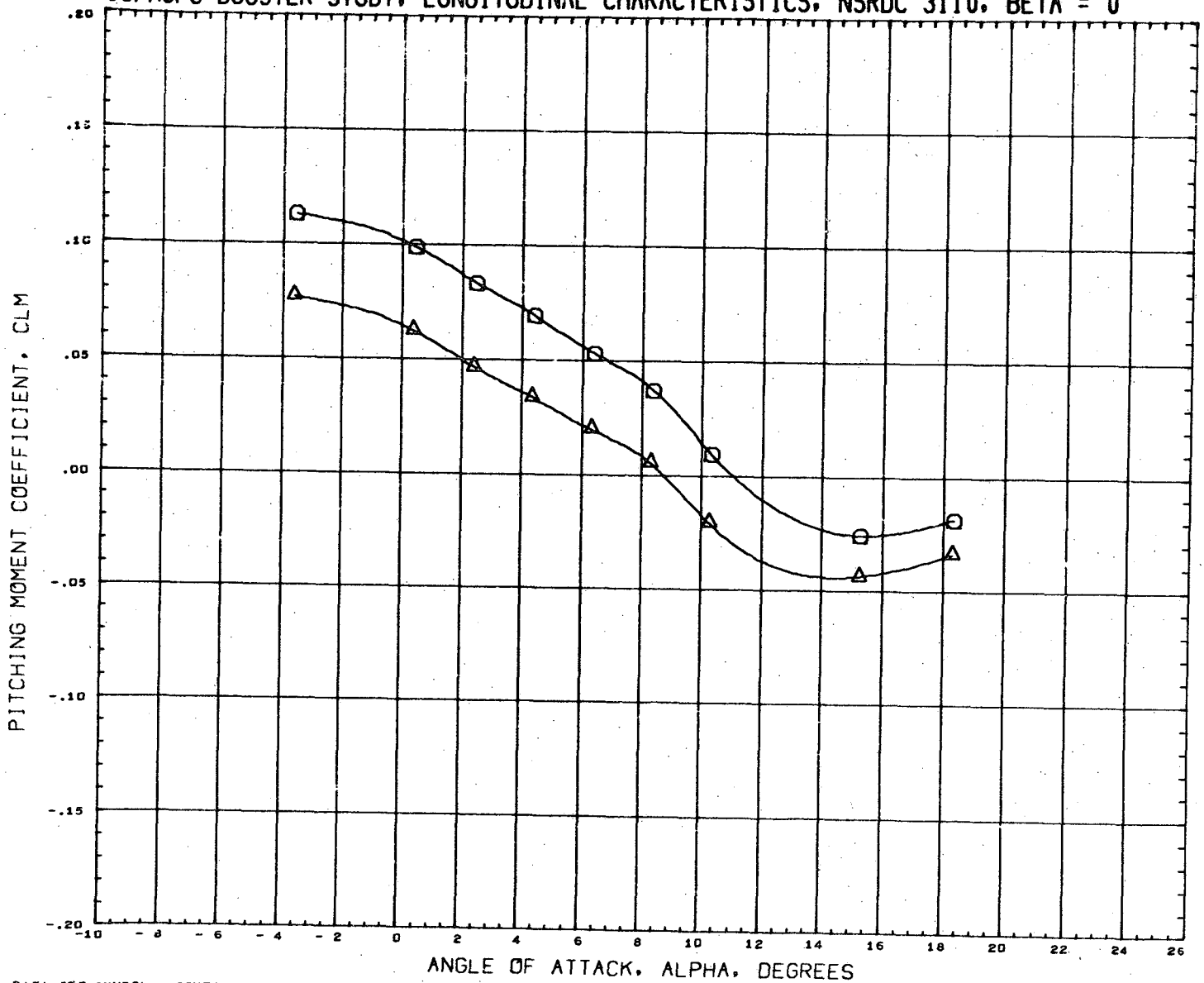



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2157) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 2.000 | 0.000 | 2.000 |
| (RN2189) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 2.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

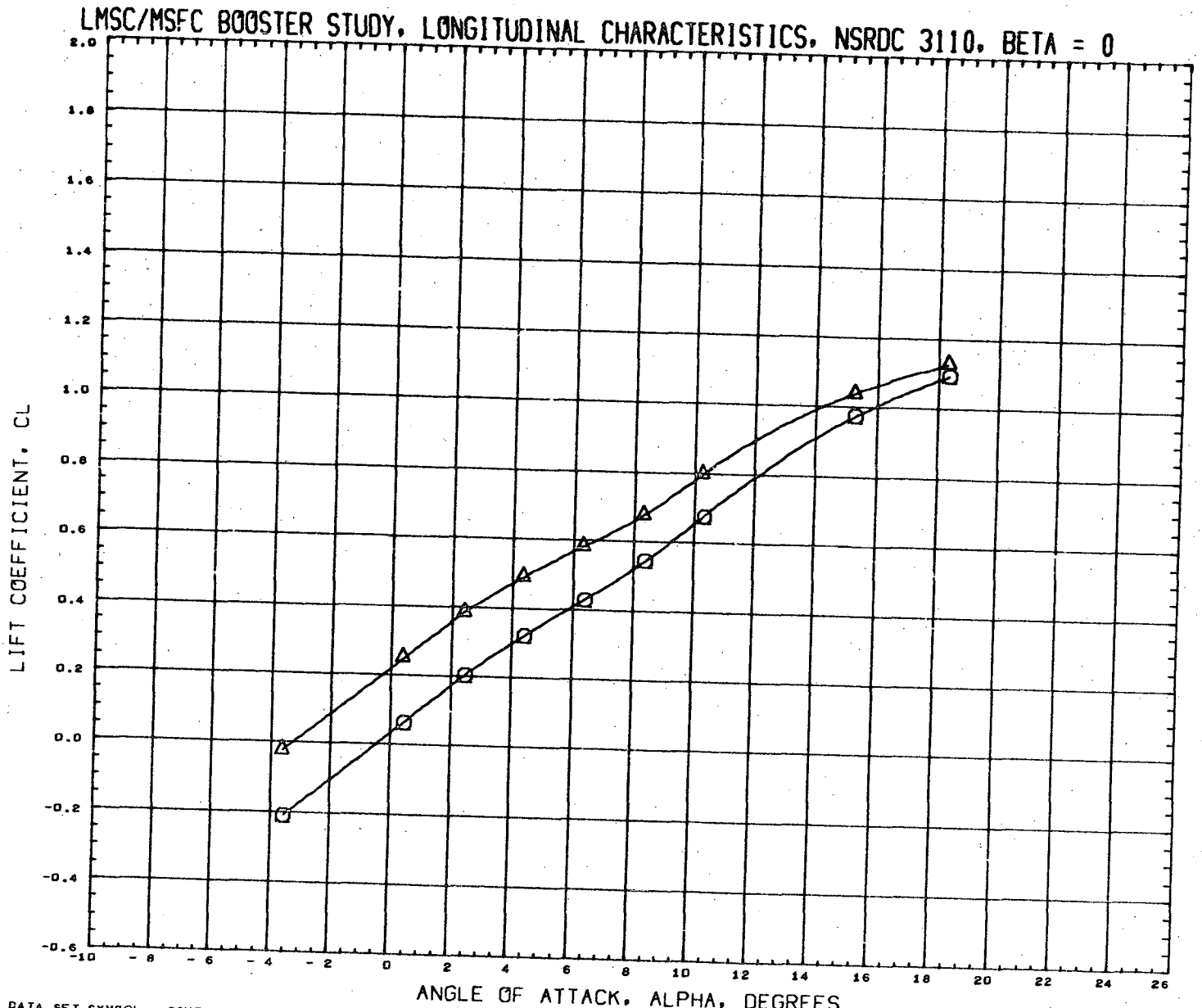



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDFOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2157) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 2.000 | 0.000 | 2.000 |
| (RN2189) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 2.000 | 3.000 | 2.000 |

MACH 0.381

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |



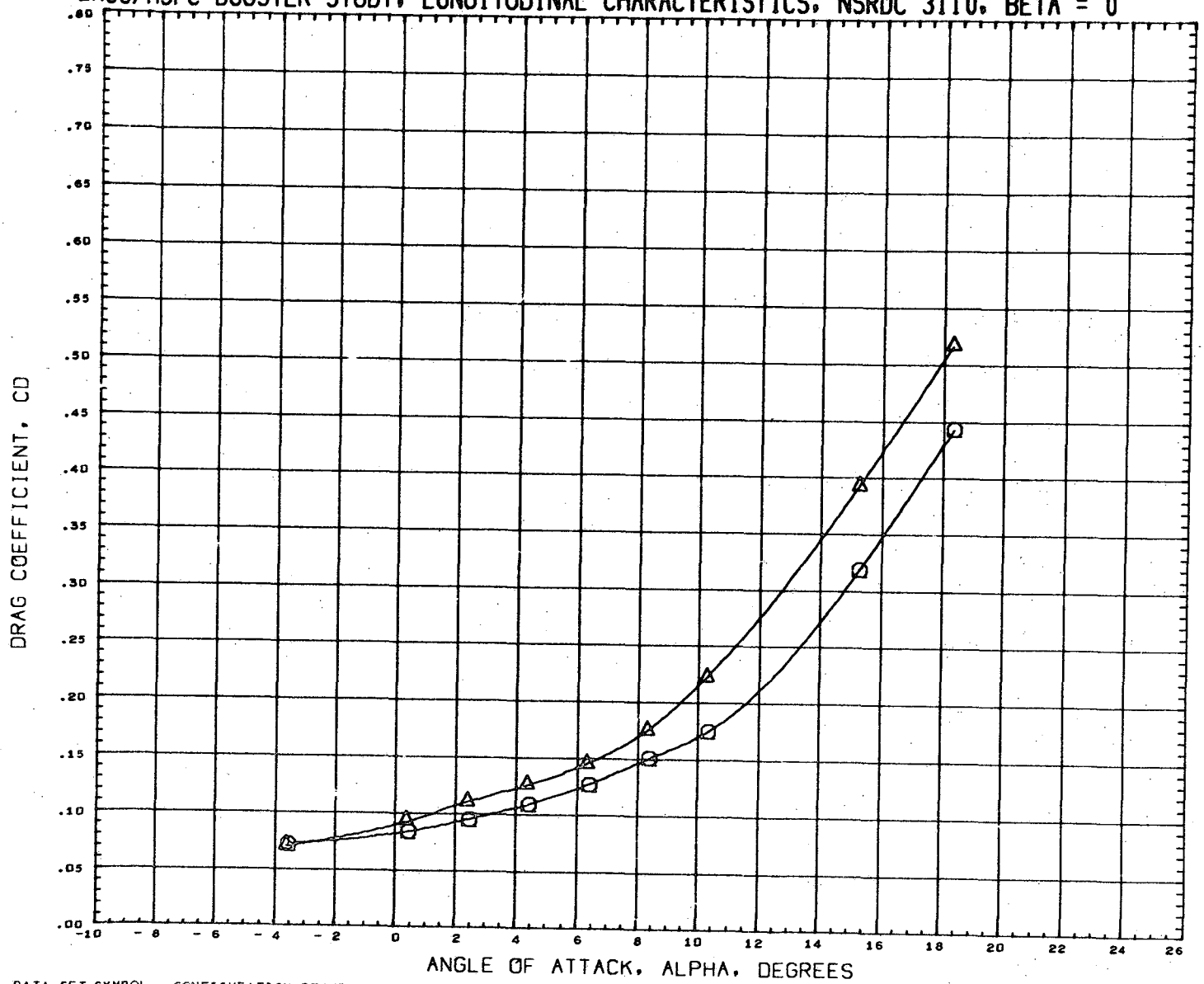

| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2157) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 2.000 | 0.000 | 2.000 |
| (RN2189) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 2.000 | 3.000 | 2.000 |

MACH 0.381

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2157) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 2.000 | 0.000 | 2.000 |
| (RN2189) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 2.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRF | 31.1400 | INCHES |
| YMRF | 0.0000 | INCHES |
| ZMRF | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

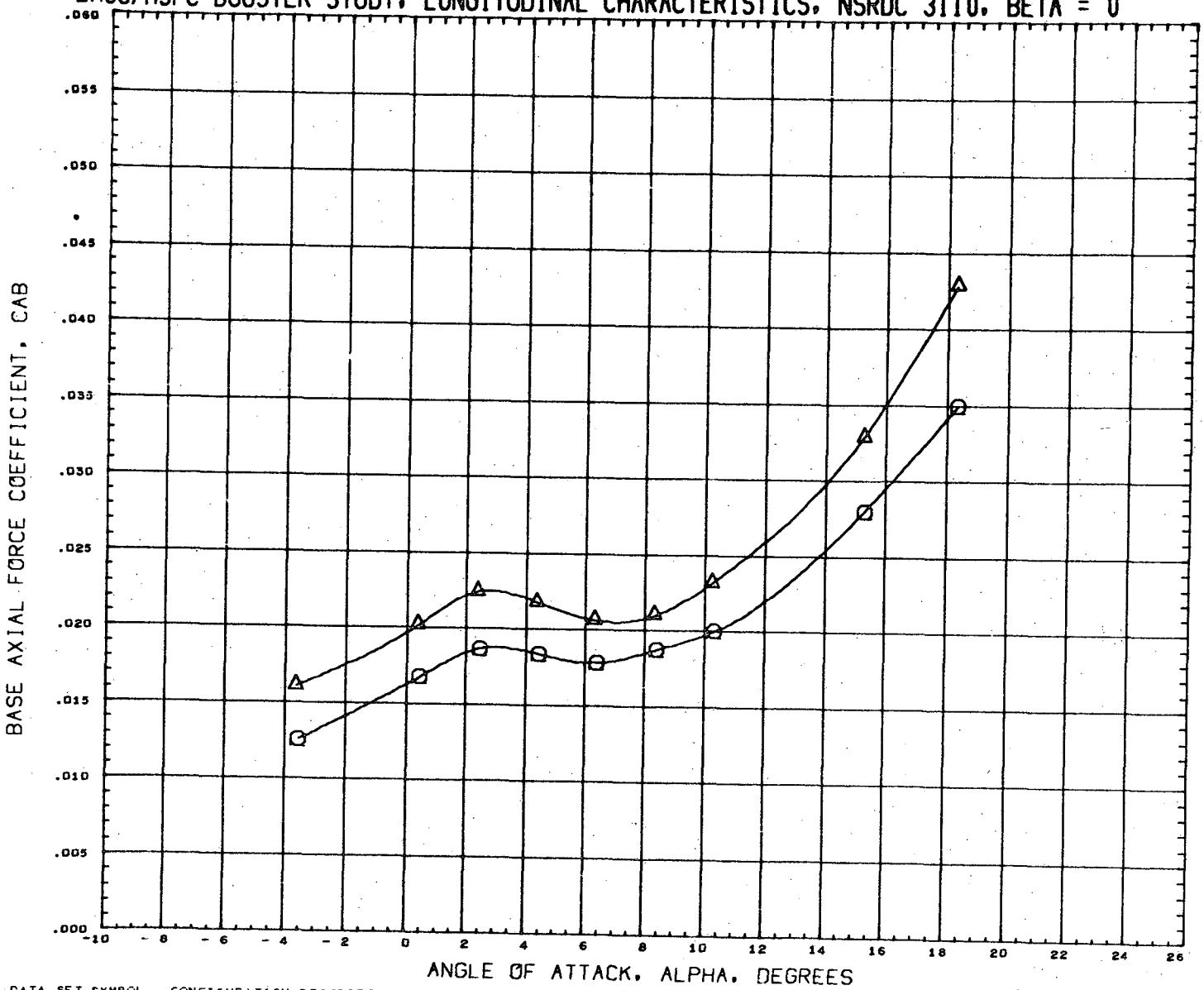
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2157) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 2.000 | 0.000 | 2.000 |
| (RN2189) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 2.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

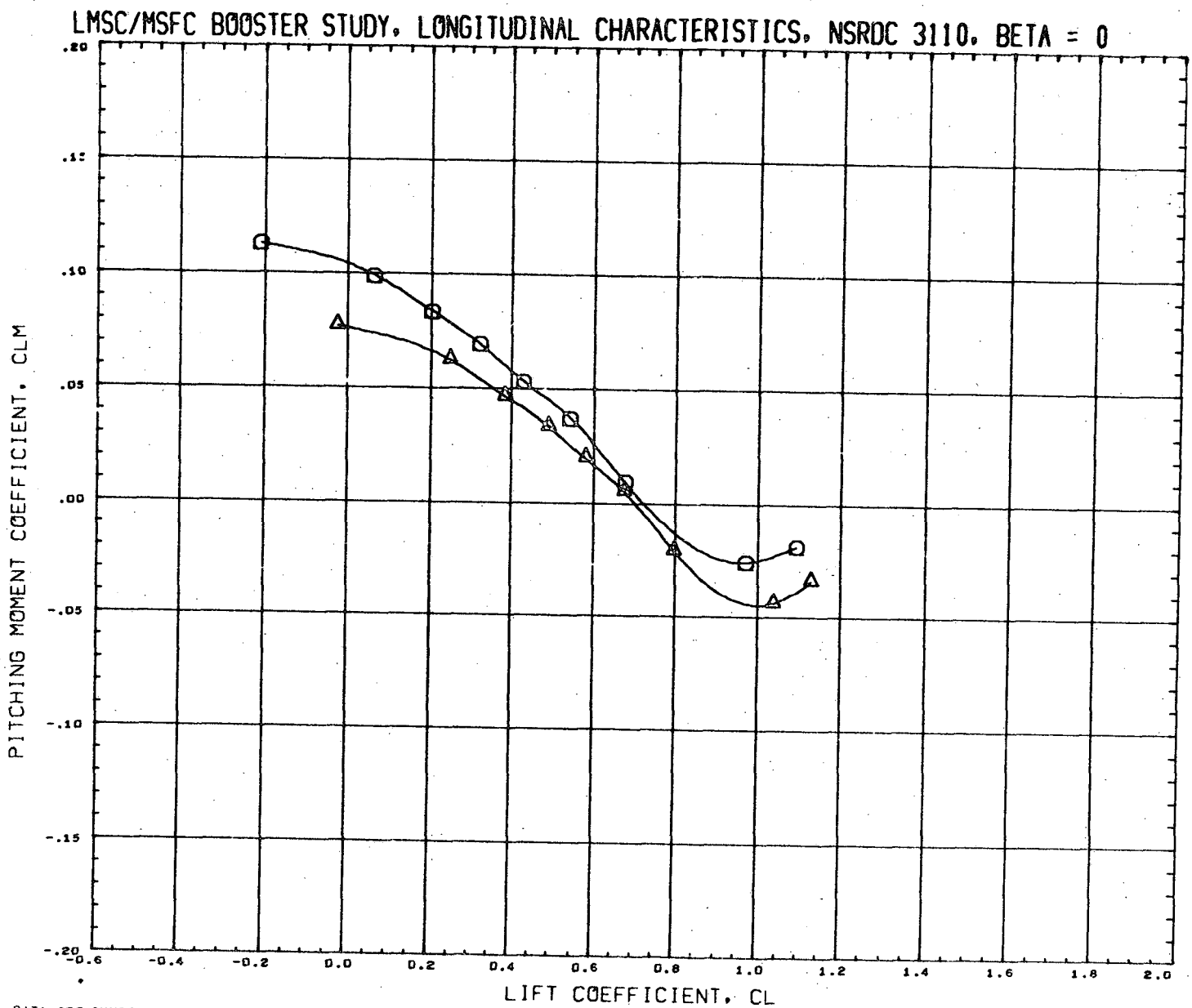
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDFOS | INCIDW | WNGFOS |
|---|---|---|---|---|---|---|
| (RN2157) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 2.000 | 0.000 | 2.000 |
| (RN2189) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 2.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

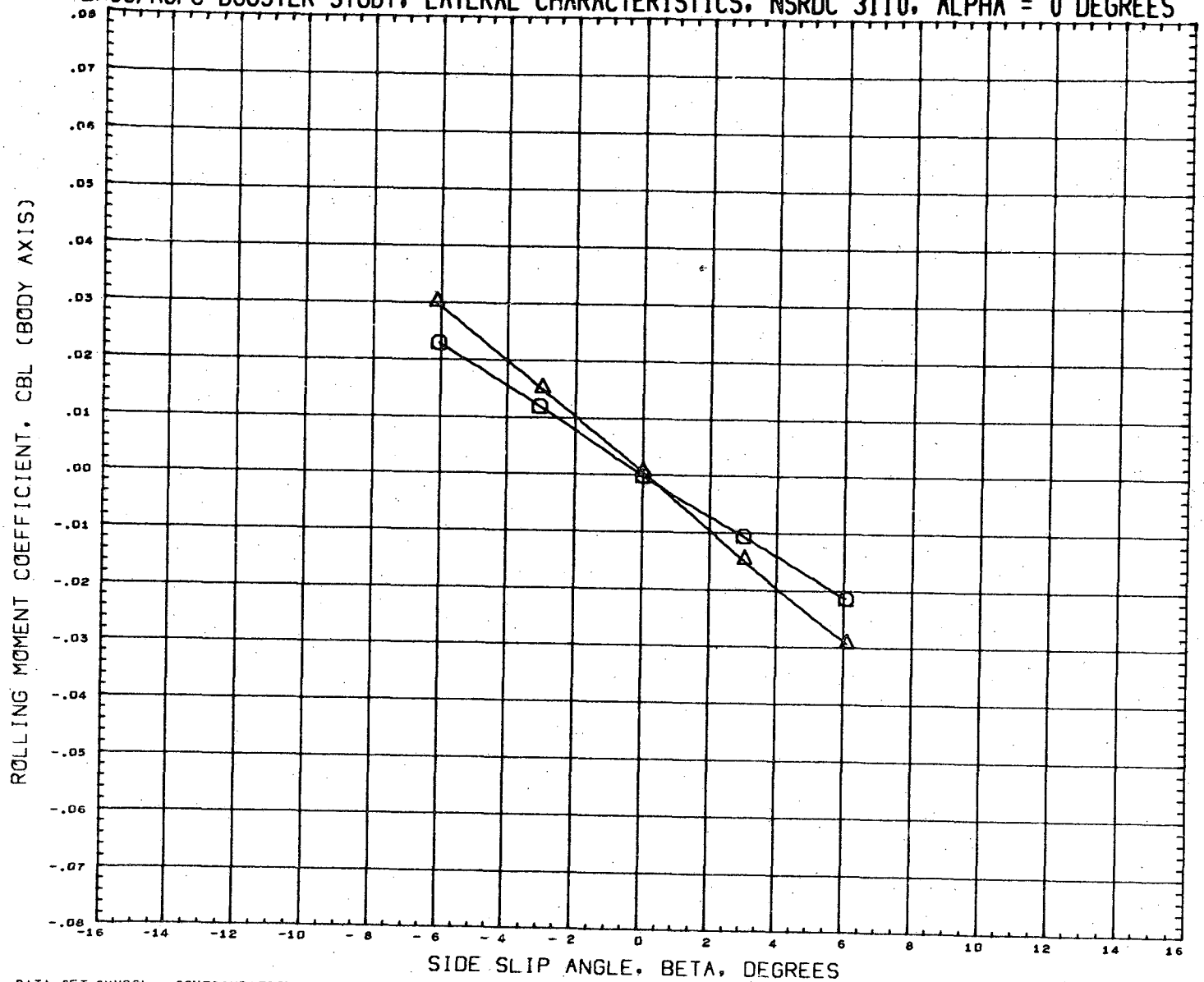



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2157) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 2.000 | 0.000 | 2.000 |
| (RN2189) | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 2.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

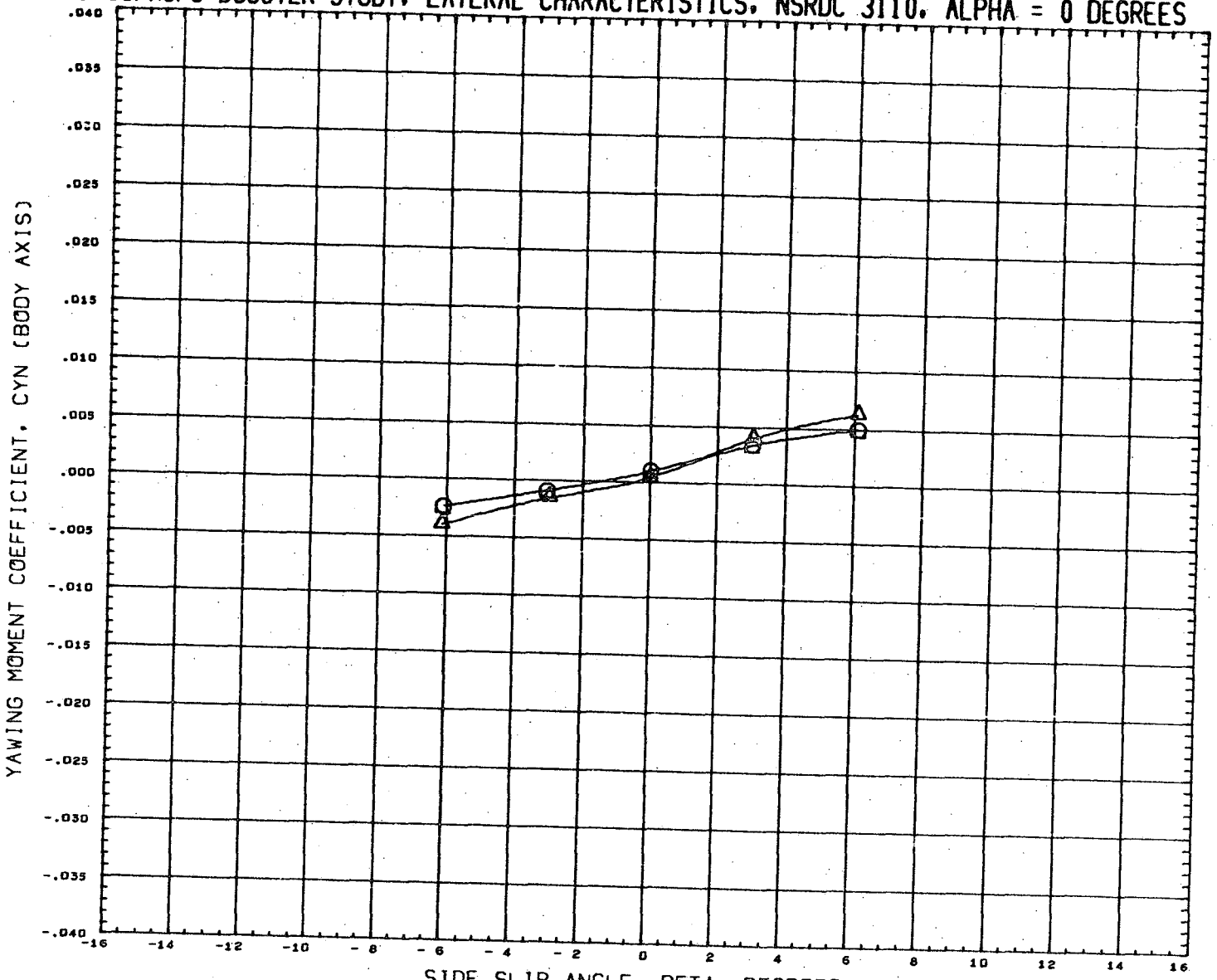



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2158) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 2.000 | 0.000 | 2.000 |
| (RN2190) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 2.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

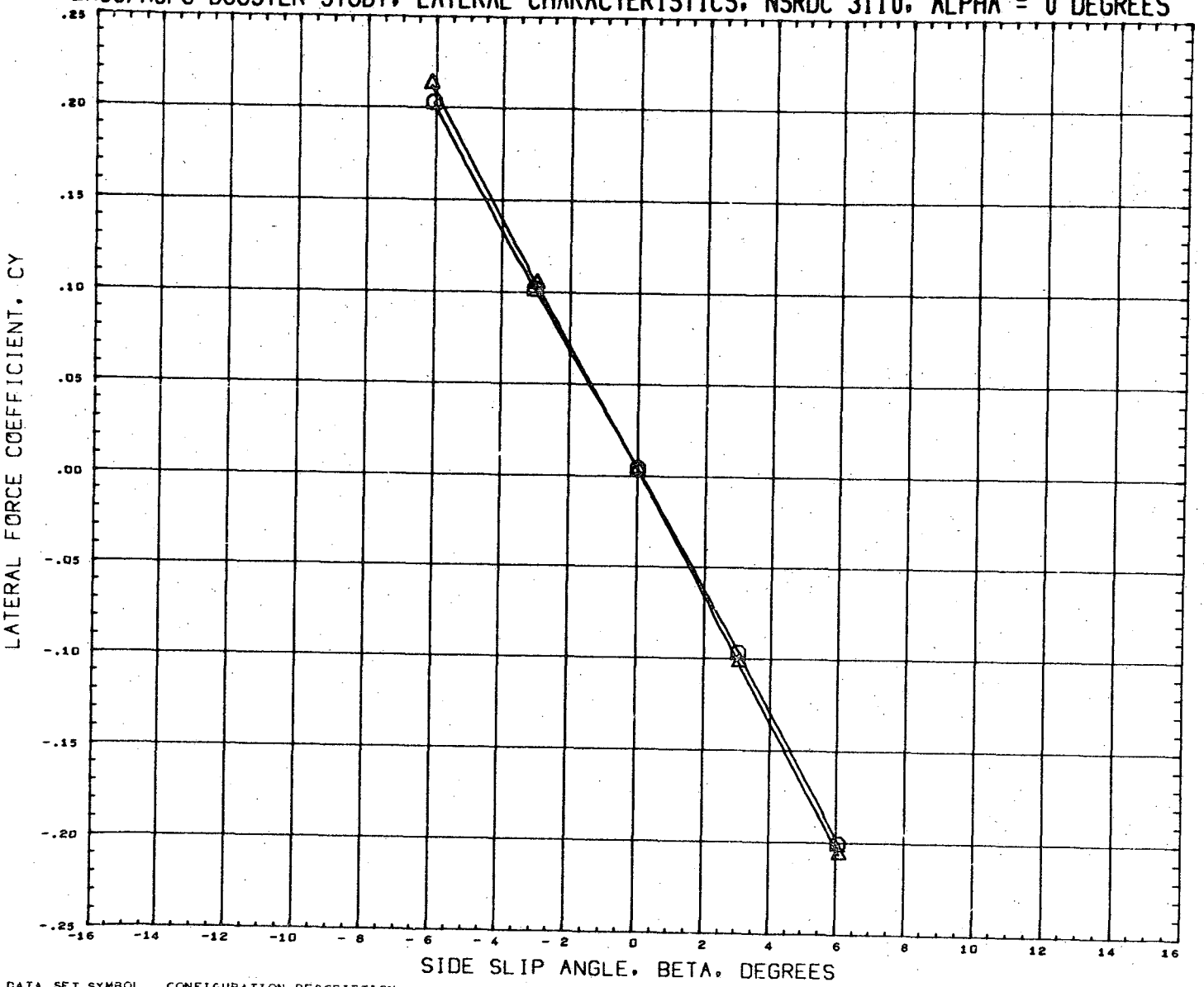



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDFOS | INCIDW | WNGFOS |
|---|---|---|---|---|---|
| (RN2150) ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 2.000 | 0.000 | 2.000 |
| (RN2190) △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 2.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

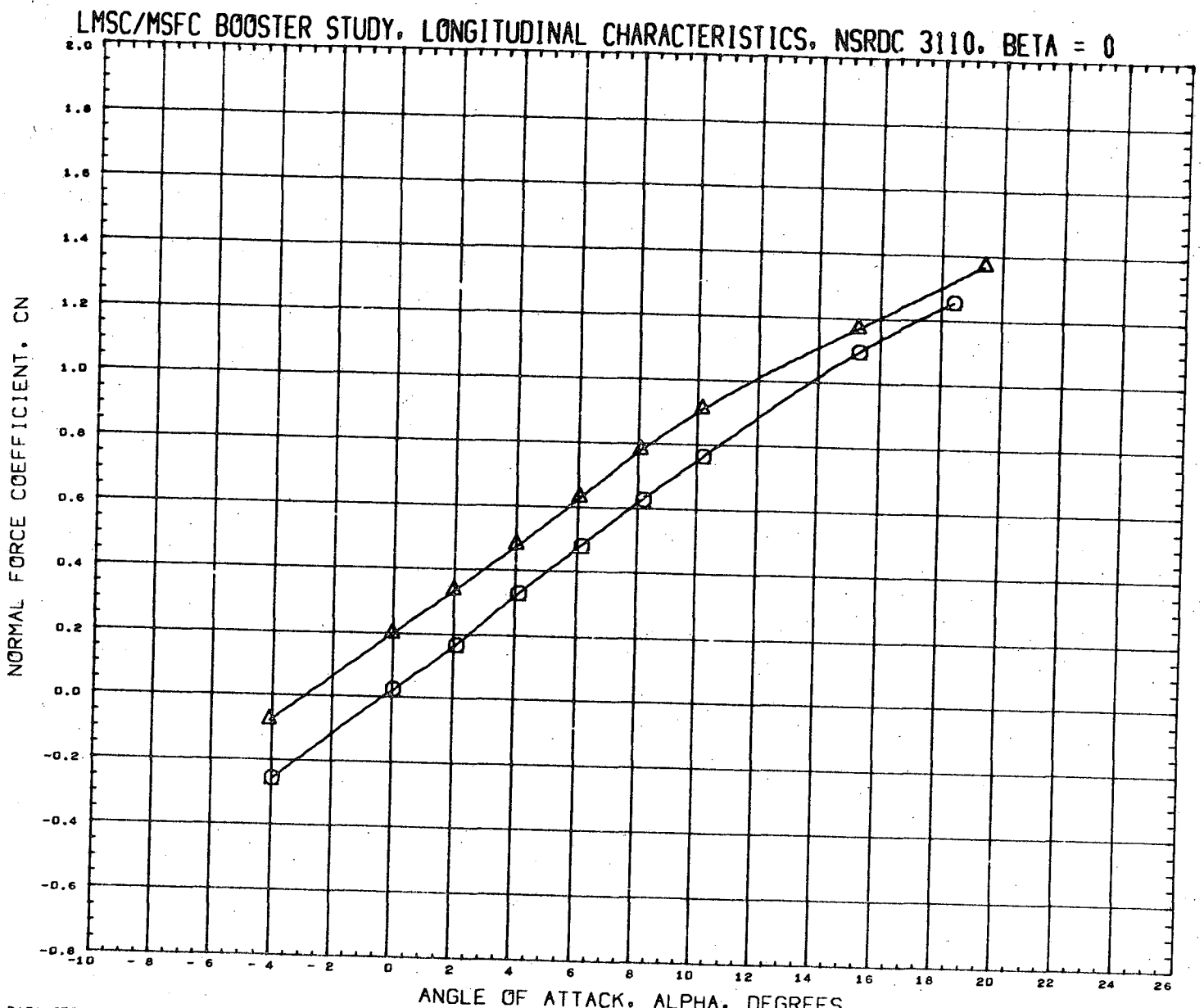
# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDFOS | INCIDW | WNGFOS |
|---|---|---|---|---|---|---|
| (RN2158) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 2.000 | 0.000 | 2.000 |
| (RN2190) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C1F1W1V2D1 | 15.000 | 2.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

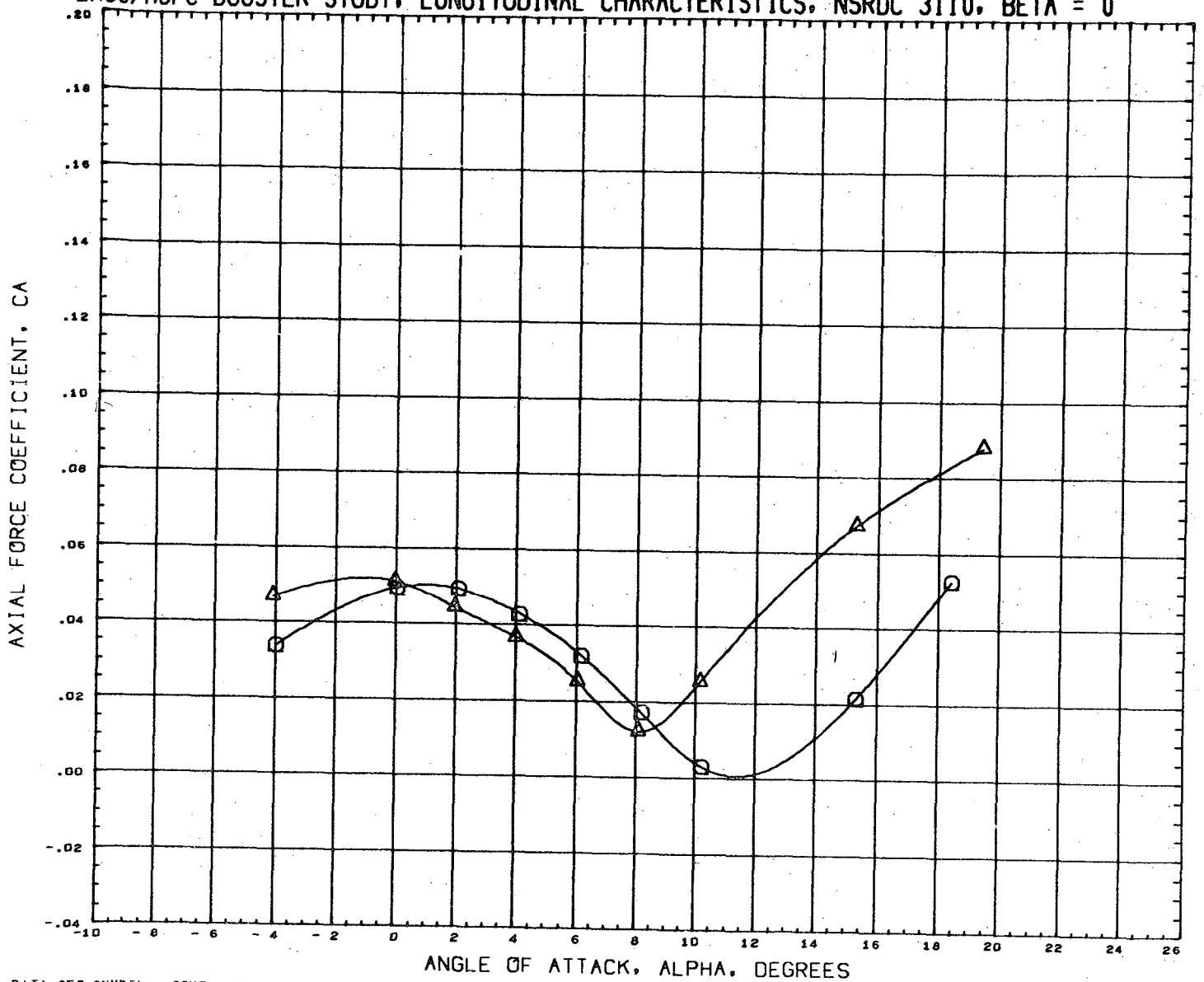



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2193) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 1.000 | 0.000 | 1.000 |
| (RN2225) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 1.000 | 3.000 | 1.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

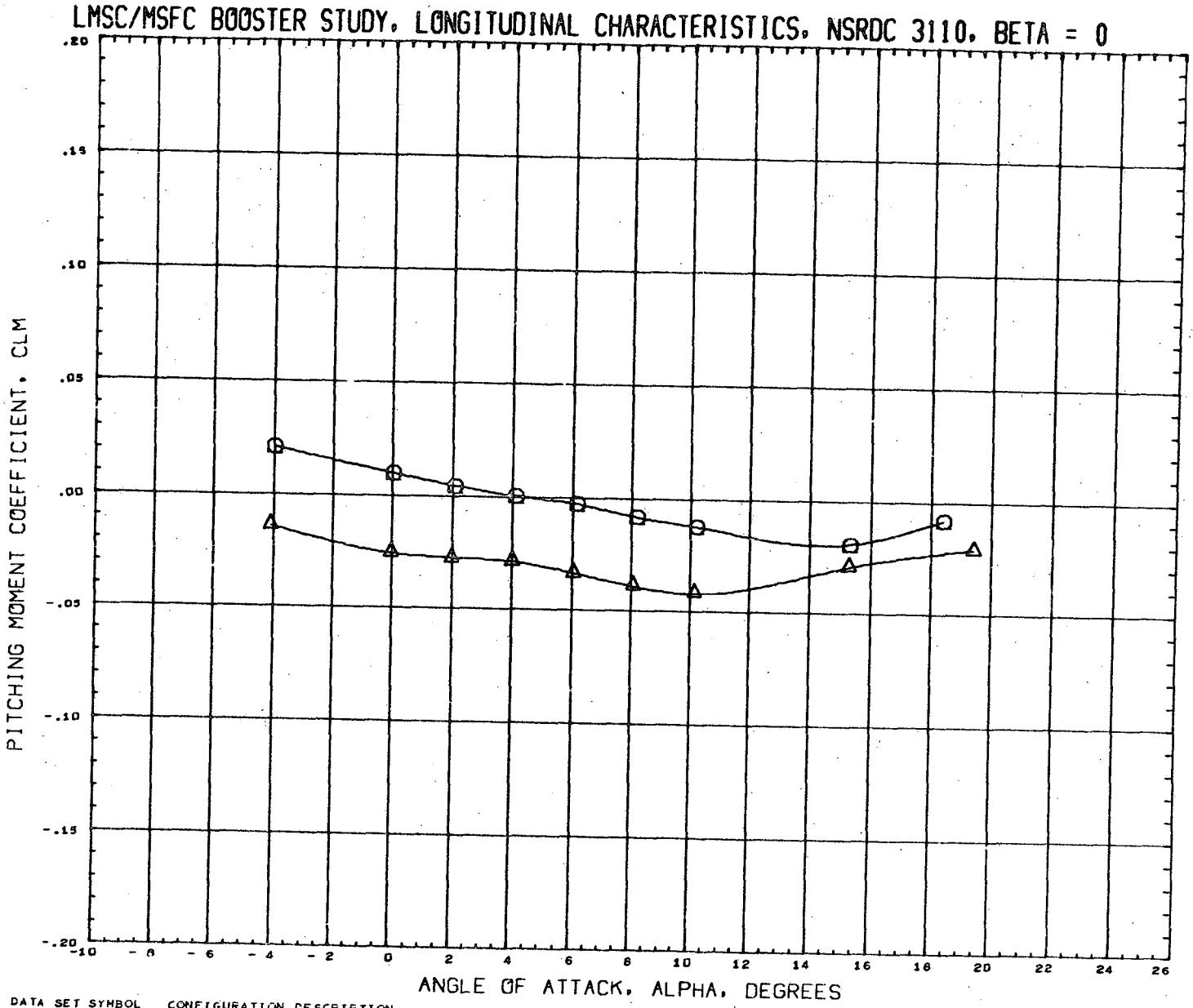
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2193) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 1.000 | 0.000 | 1.000 |
| (RN2225) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 1.000 | 3.000 | 1.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |



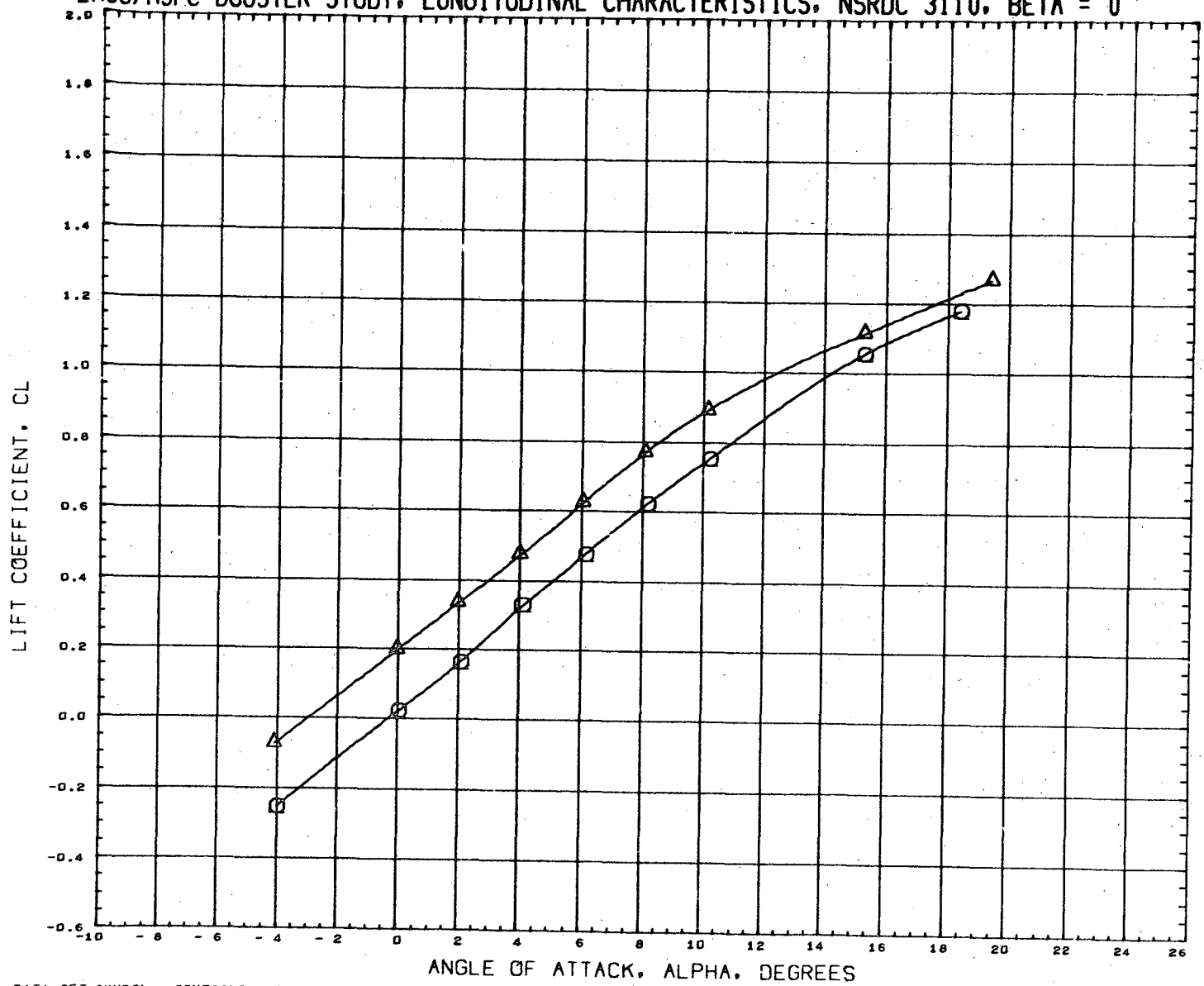

| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION |
|---|---|---|
| (RN2193) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 |
| (RN2225) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 |

| | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|
| | 3.000 | 1.000 | 0.000 | 1.000 |
| | 3.000 | 1.000 | 3.000 | 1.000 |

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

MACH 0.380

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

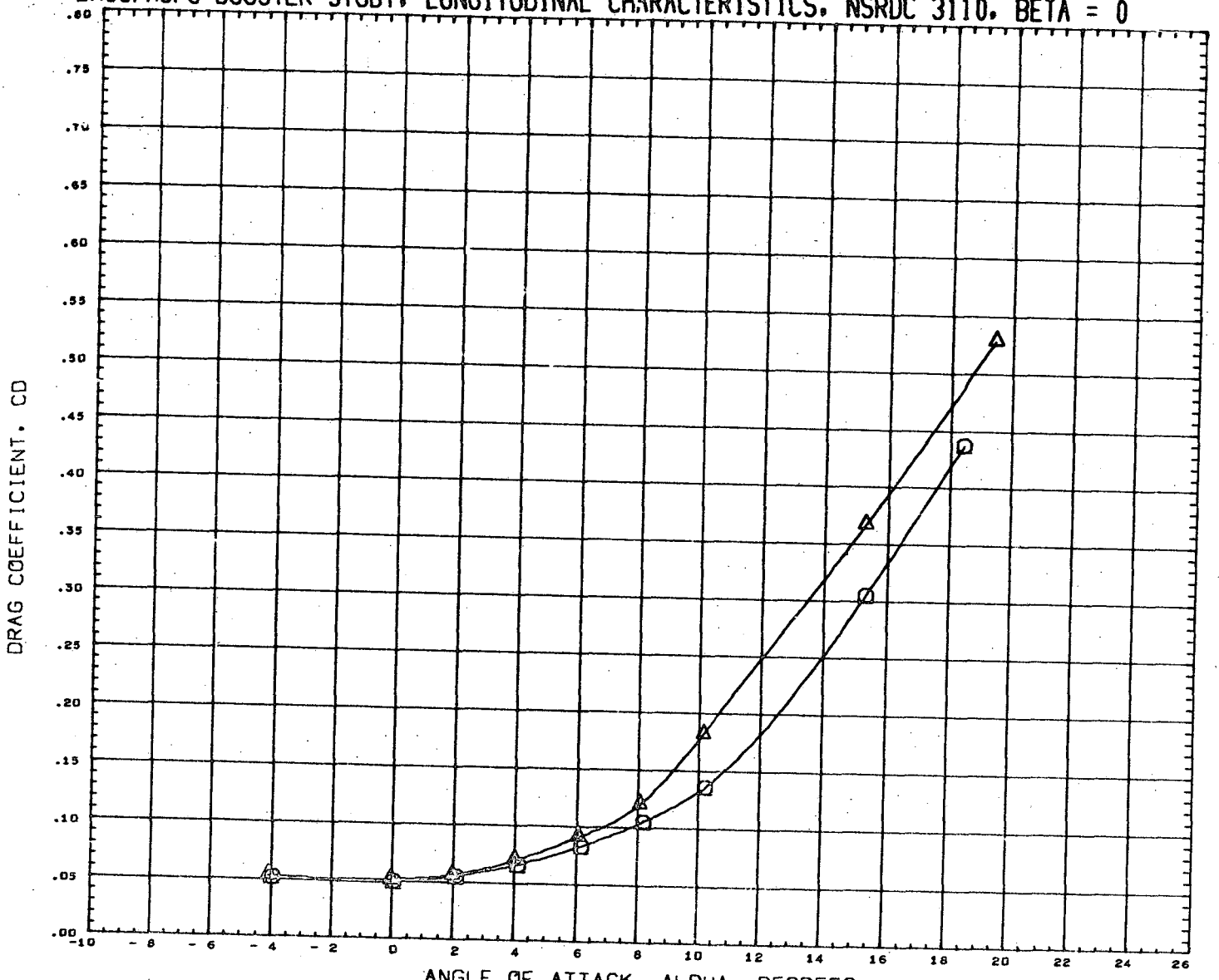



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2193) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 1.000 | 0.000 | 1.000 |
| (RN2225) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 1.000 | 3.000 | 1.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0



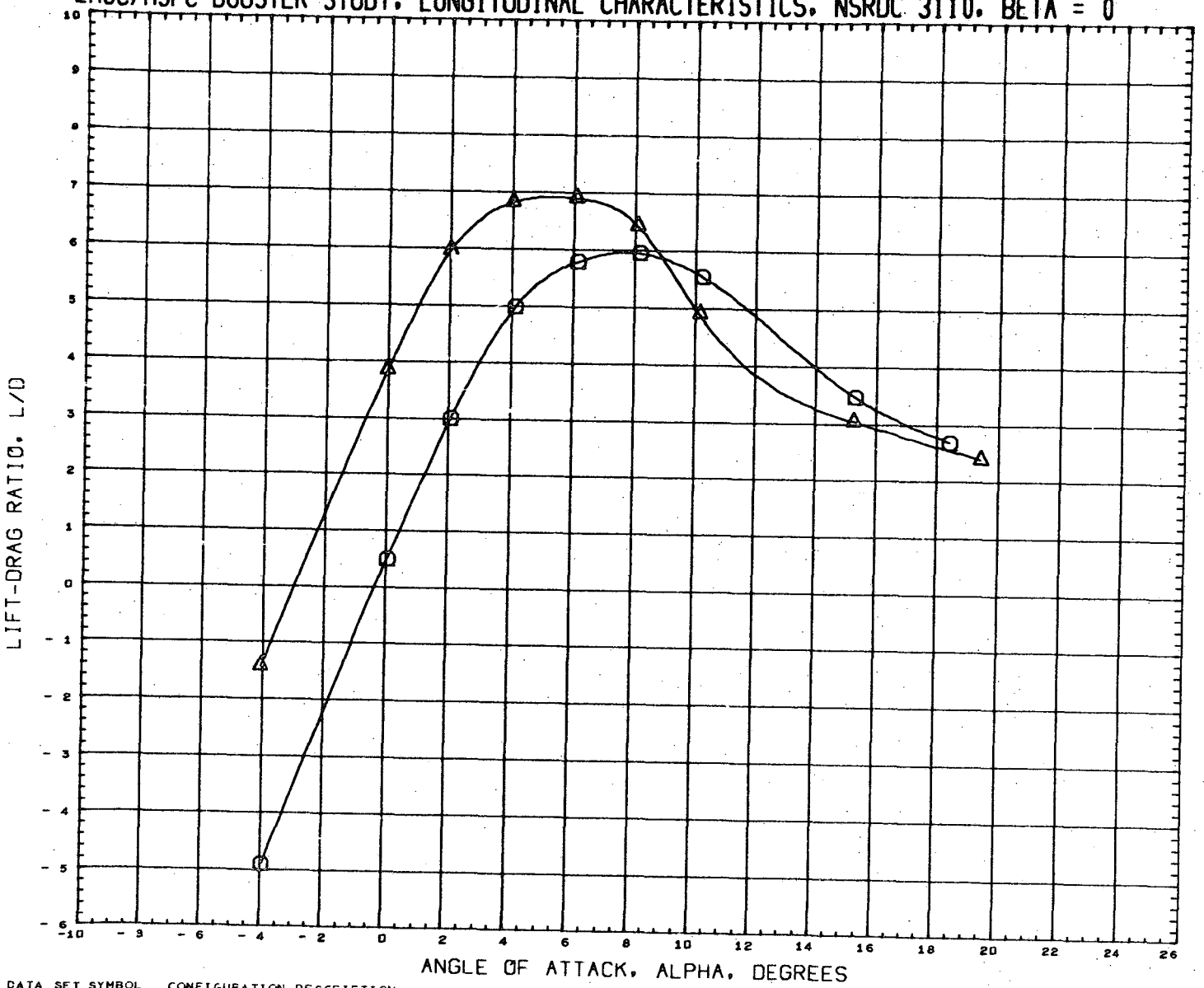

| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION |
|---|---|---|
| (RN2193) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 |
| (RN2225) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 |

| INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|
| 3.000 | 1.000 | 0.000 | 1.000 |
| 3.000 | 1.000 | 3.000 | 1.000 |

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

MACH 0.380

# LMSC/MSFC BOOSTER STUDY. LONGITUDINAL CHARACTERISTICS. NSRDC 3110. BETA = 0

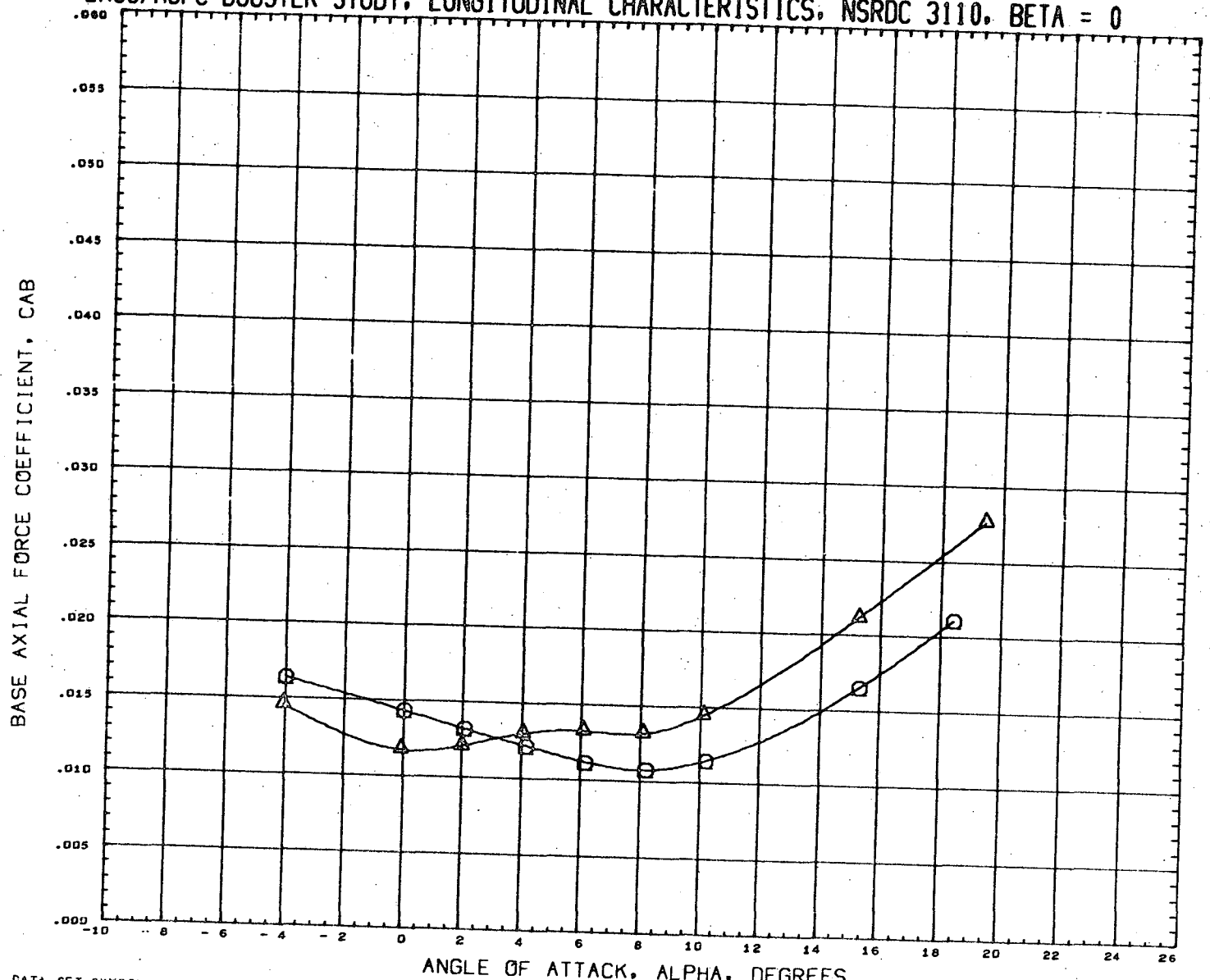



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2193) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 1.000 | 0.000 | 1.000 |
| (RN2225) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 1.000 | 3.000 | 1.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0



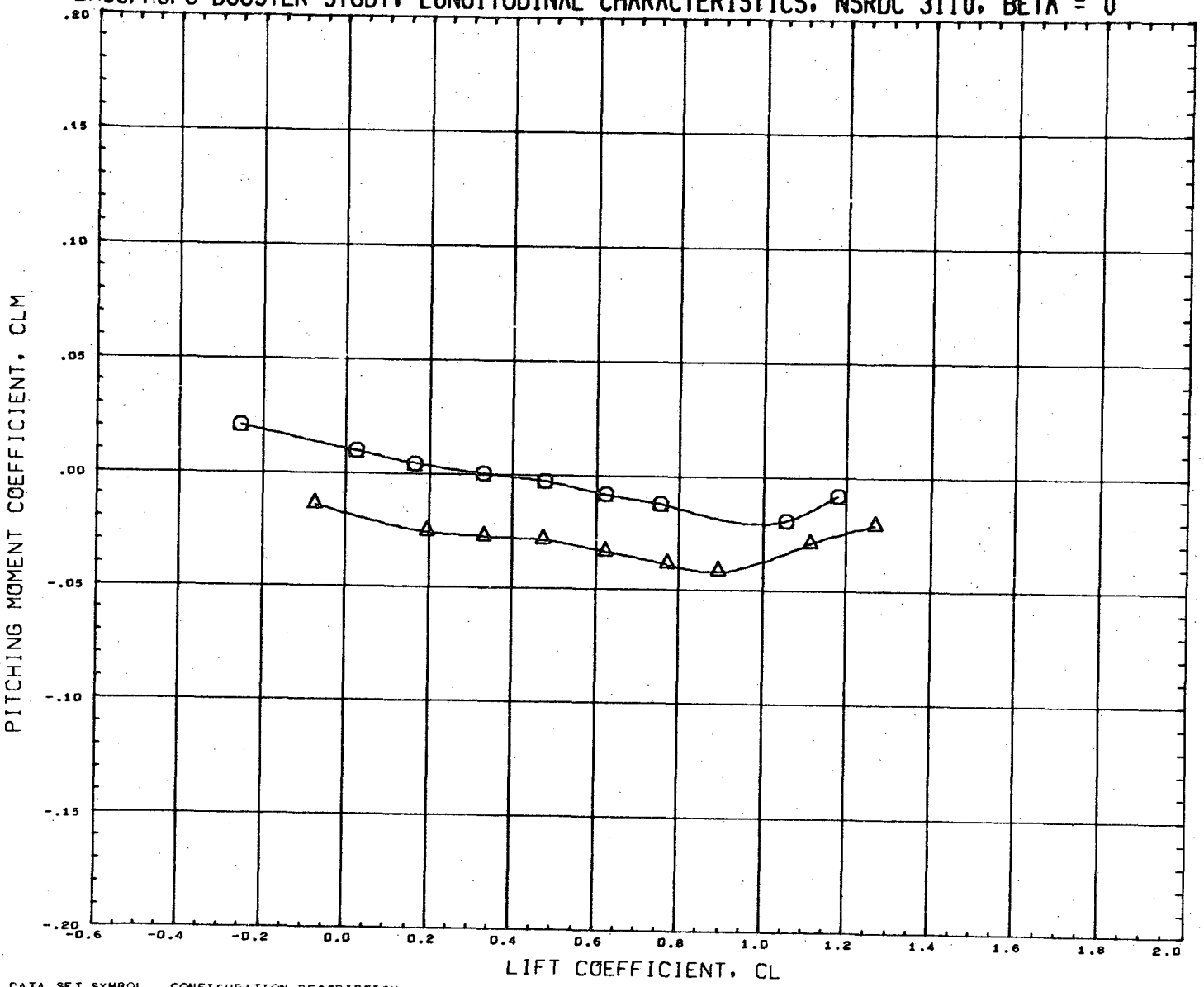

| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2193) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 1.000 | 0.000 | 1.000 |
| (RN2225) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 1.000 | 3.000 | 1.000 |

MACH 0.380

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

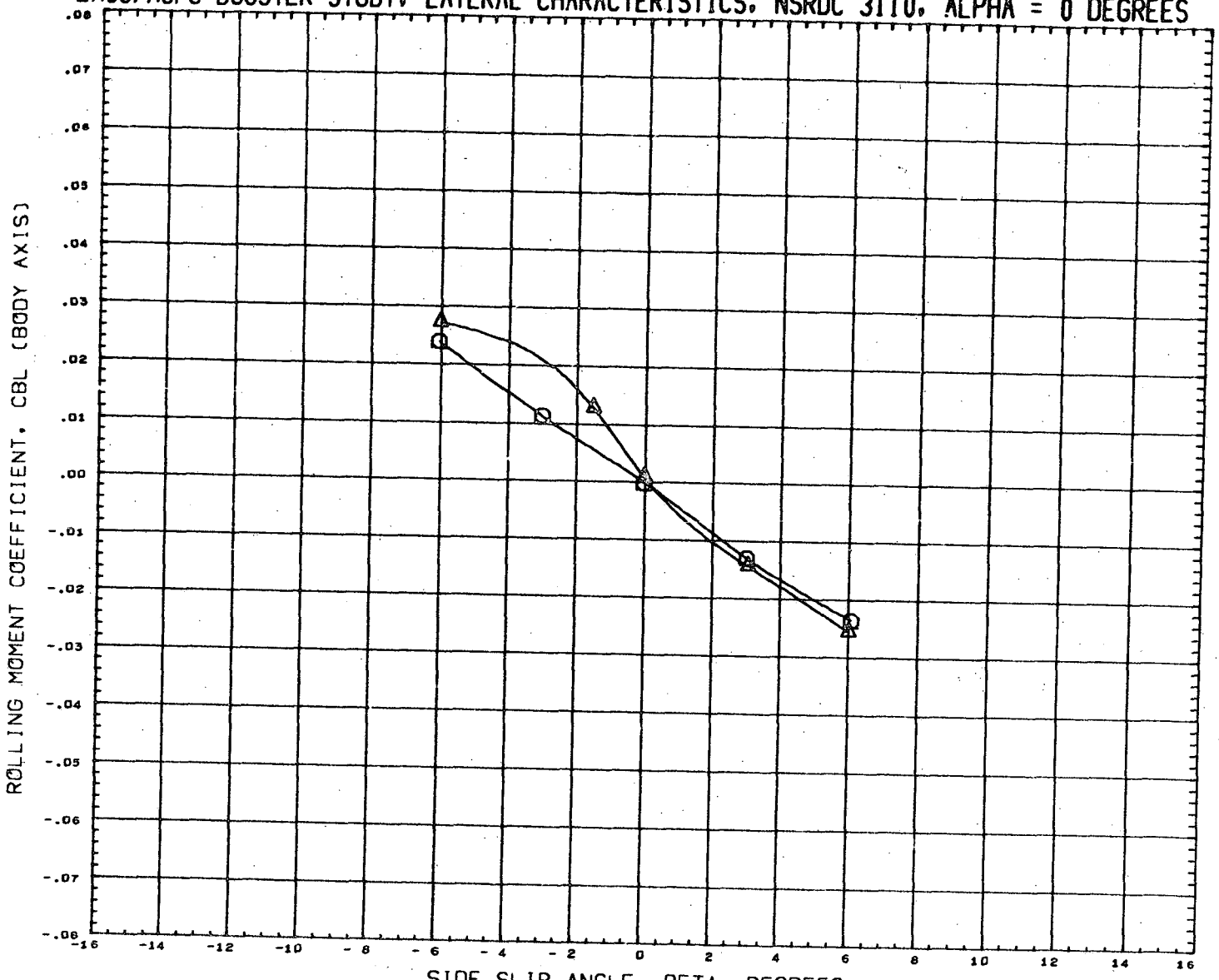



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDFOS | INCIDW | WNGFOS |
|---|---|---|---|---|---|---|
| (RN2193) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 1.000 | 0.000 | 1.000 |
| (RN2225) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 1.000 | 3.000 | 1.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

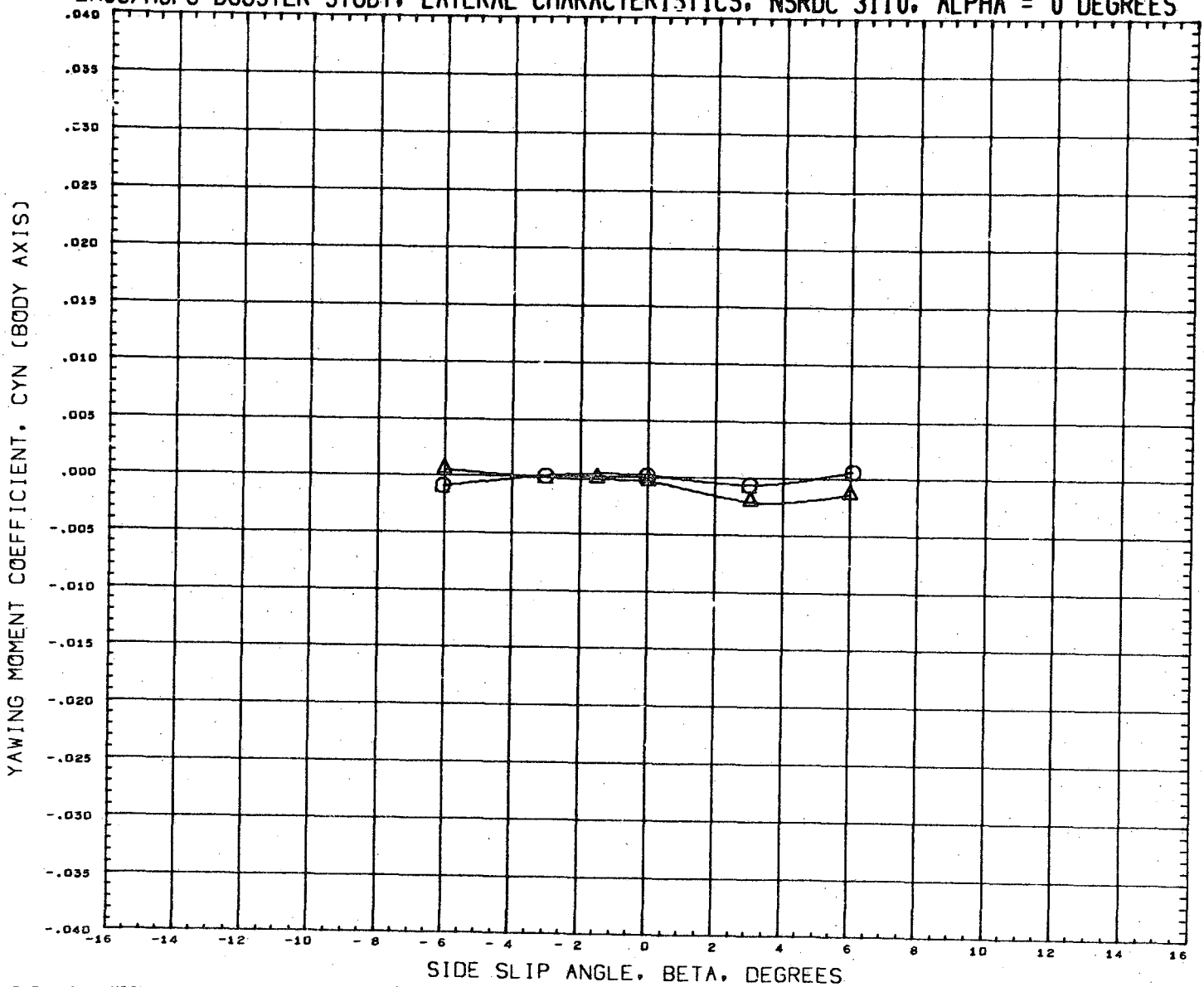



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2194) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 1.000 | 0.000 | 1.000 |
| (RN2226) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 1.000 | 3.000 | 1.000 |

MACH 0.377

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES



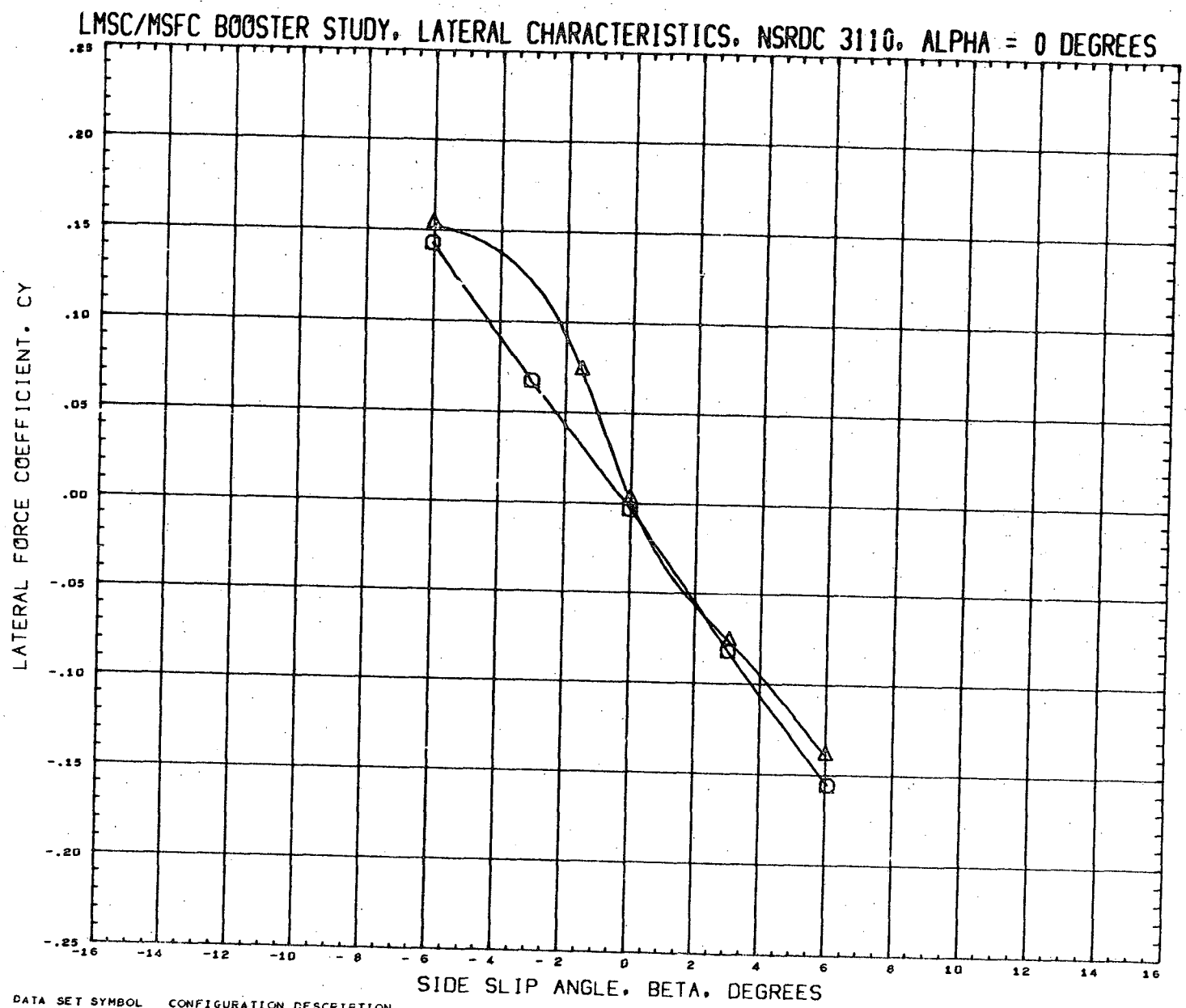

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2194) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 1.000 | 0.000 | 1.000 |
| (RN2226) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 1.000 | 3.000 | 1.000 |

MACH 0.377

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |



7A

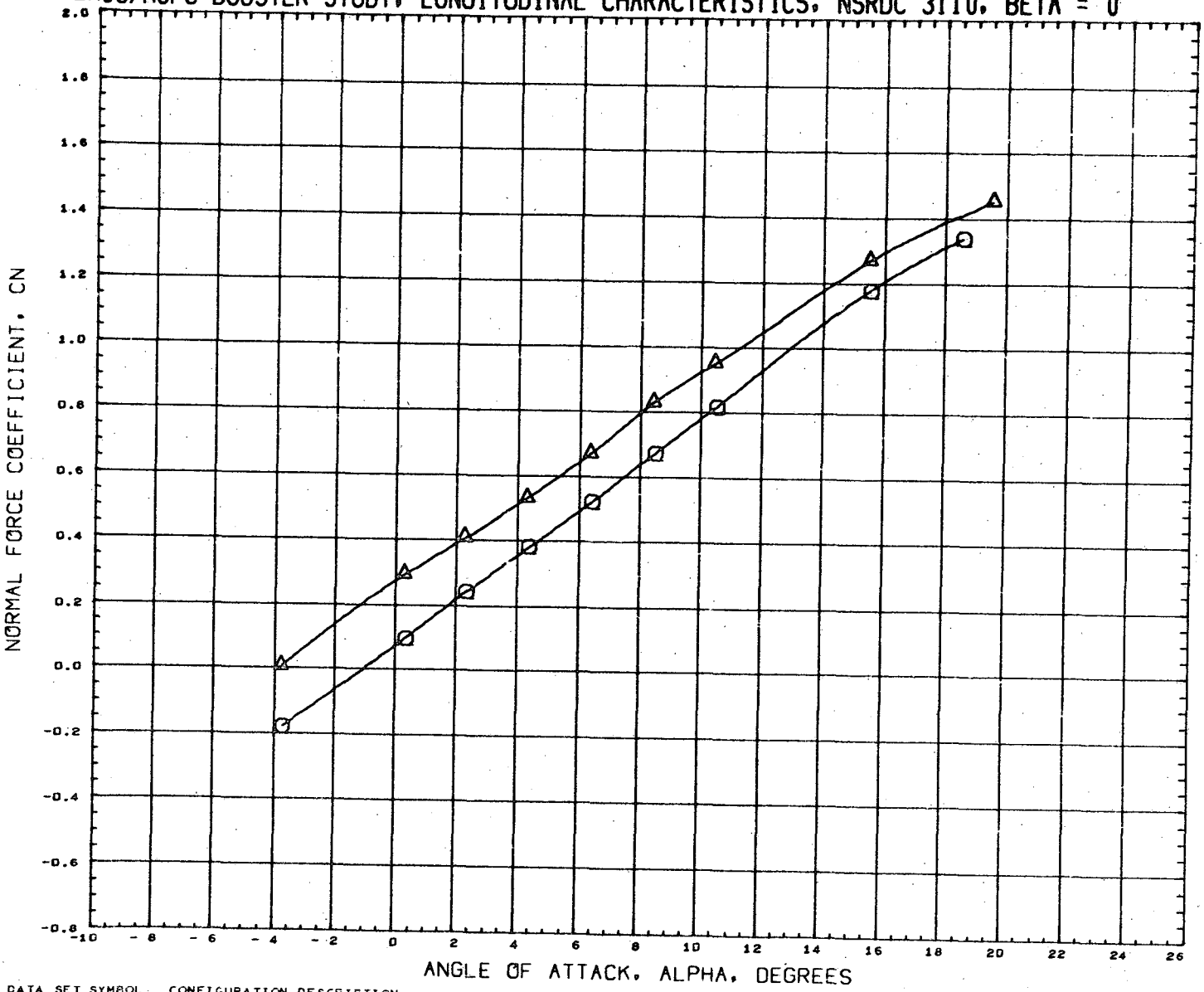



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2194) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 1.000 | 0.000 | 1.000 |
| (RN2226) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 1.000 | 3.000 | 1.000 |

MACH 0.377

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRF | 31.1400 | INCHES |
| YMRF | 0.0000 | INCHES |
| ZMRF | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

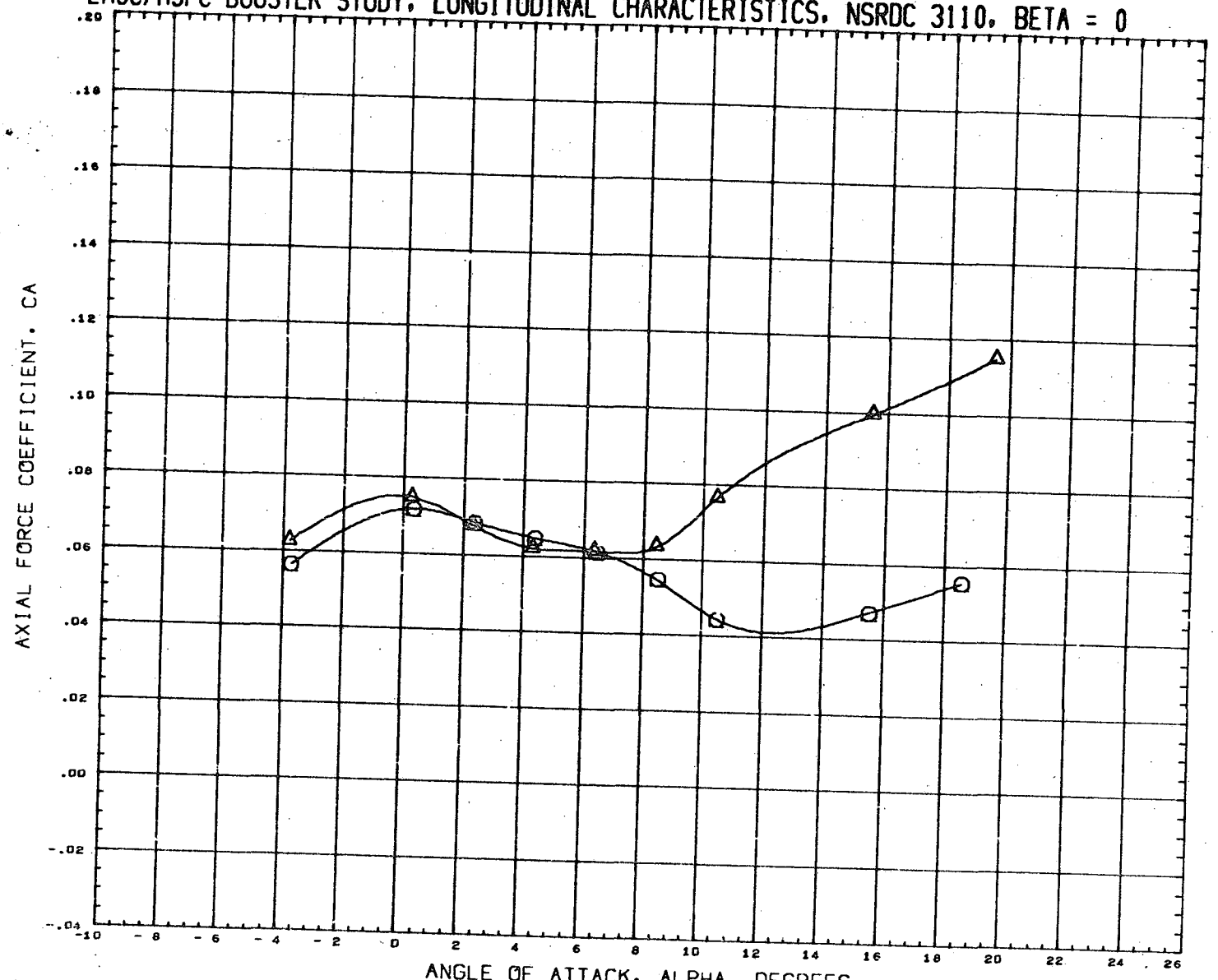



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2197) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 1.000 | 0.000 | 1.000 |
| (RN2229) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 1.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

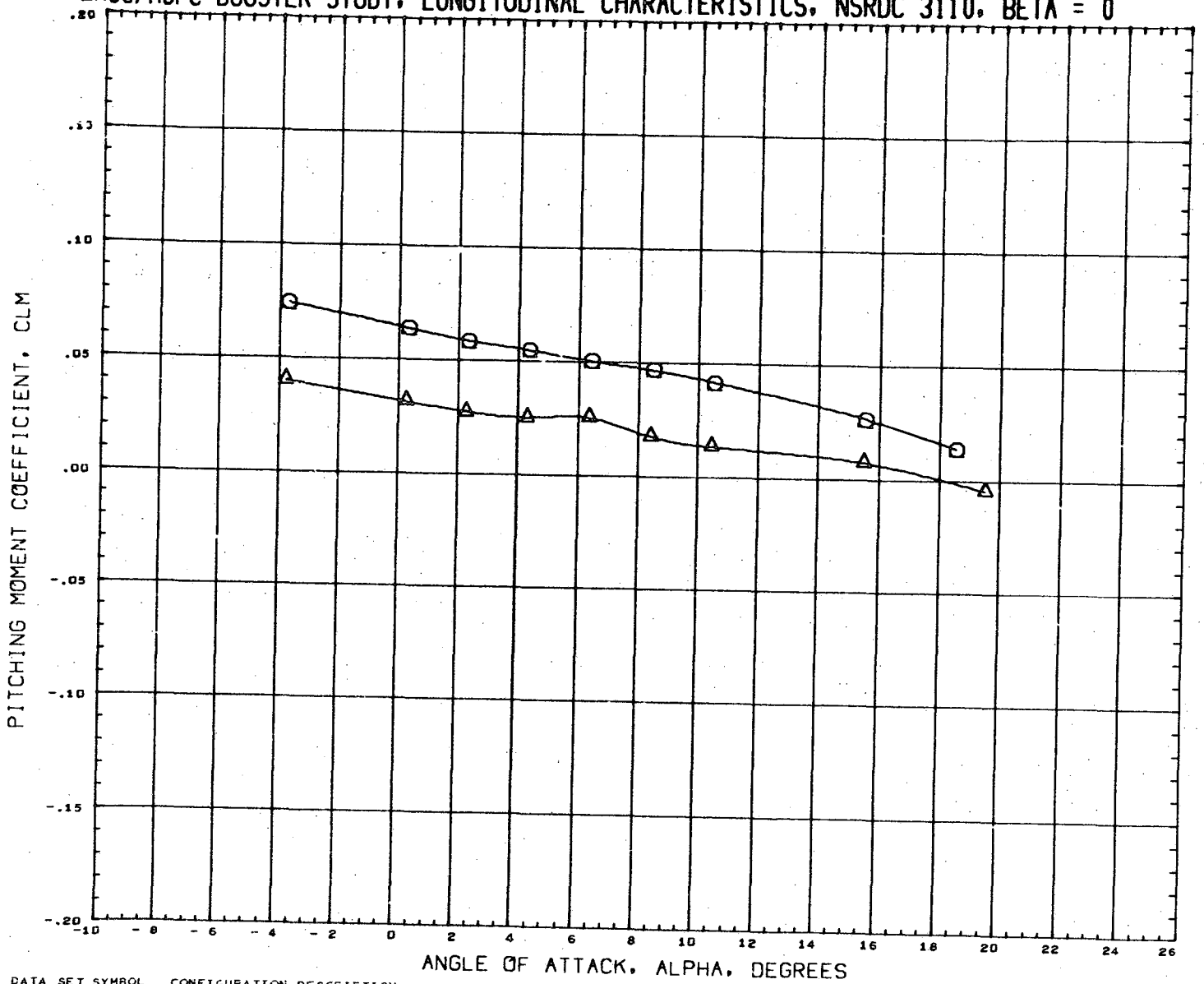



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2197) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 1.000 | 0.000 | 1.000 |
| (RN2229) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 1.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

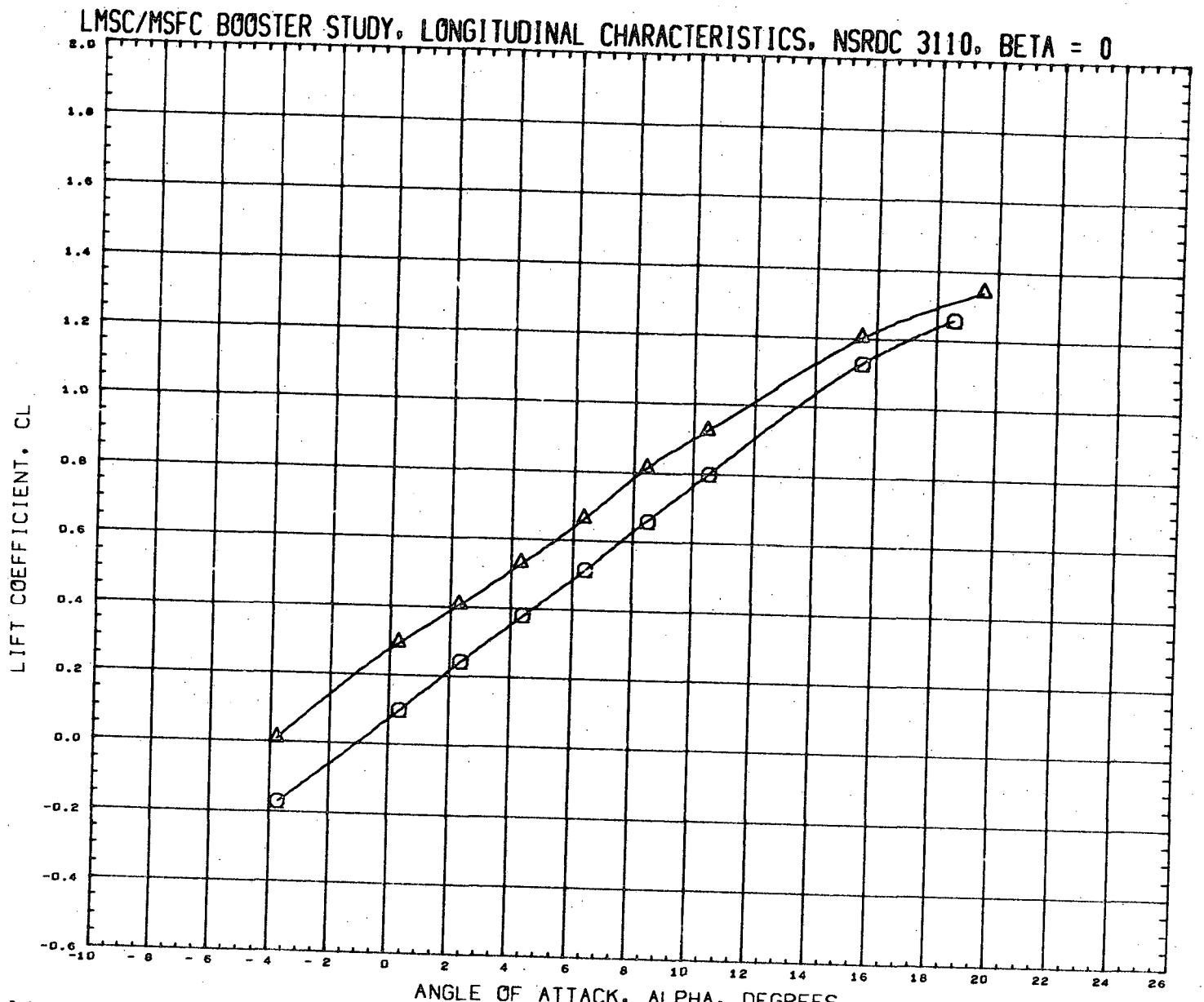
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2197) ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 1.000 | 0.000 | 1.000 |
| (RN2229) △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 1.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

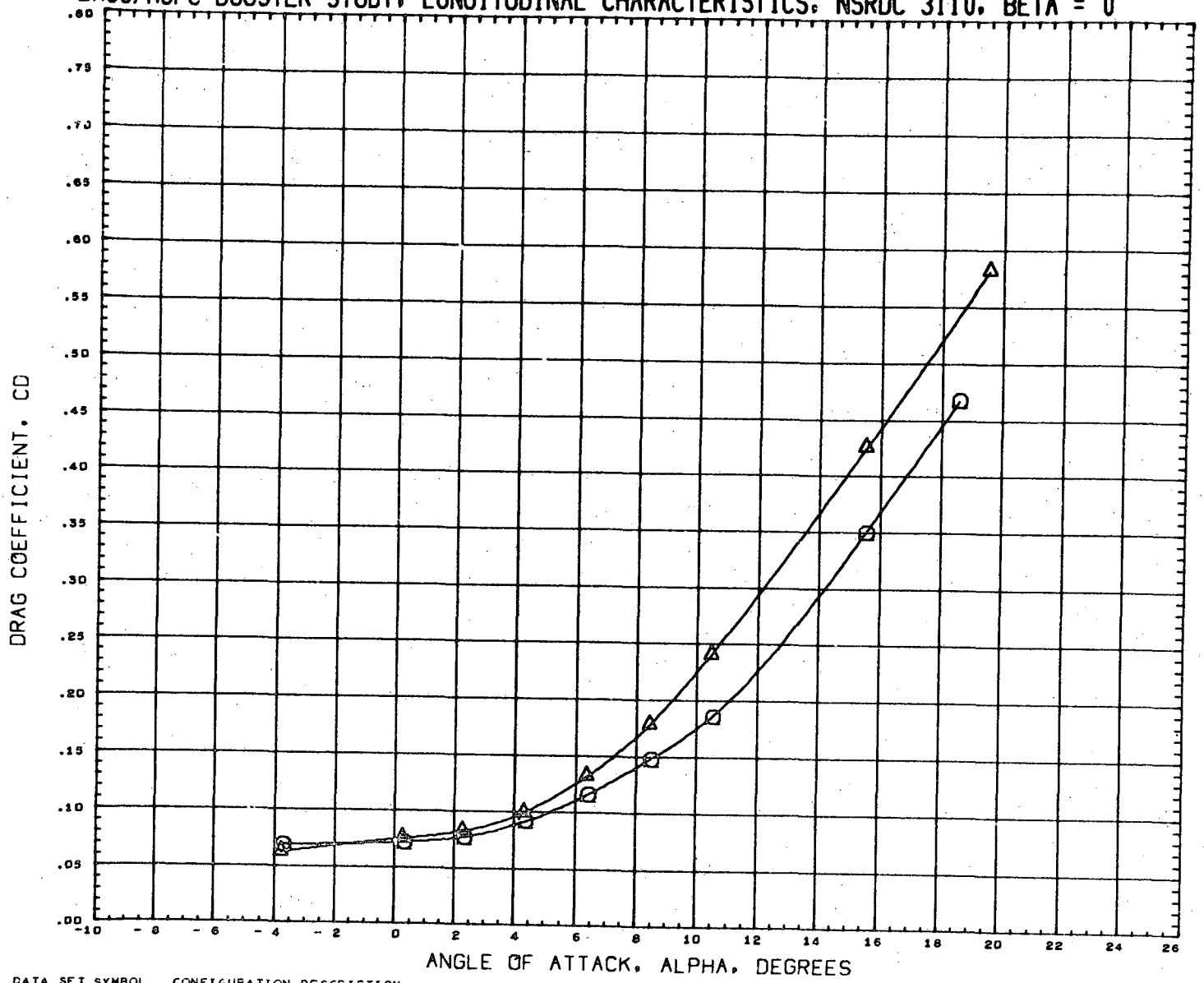



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2197) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 1.000 | 0.000 | 1.000 |
| (RN2229) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 1.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

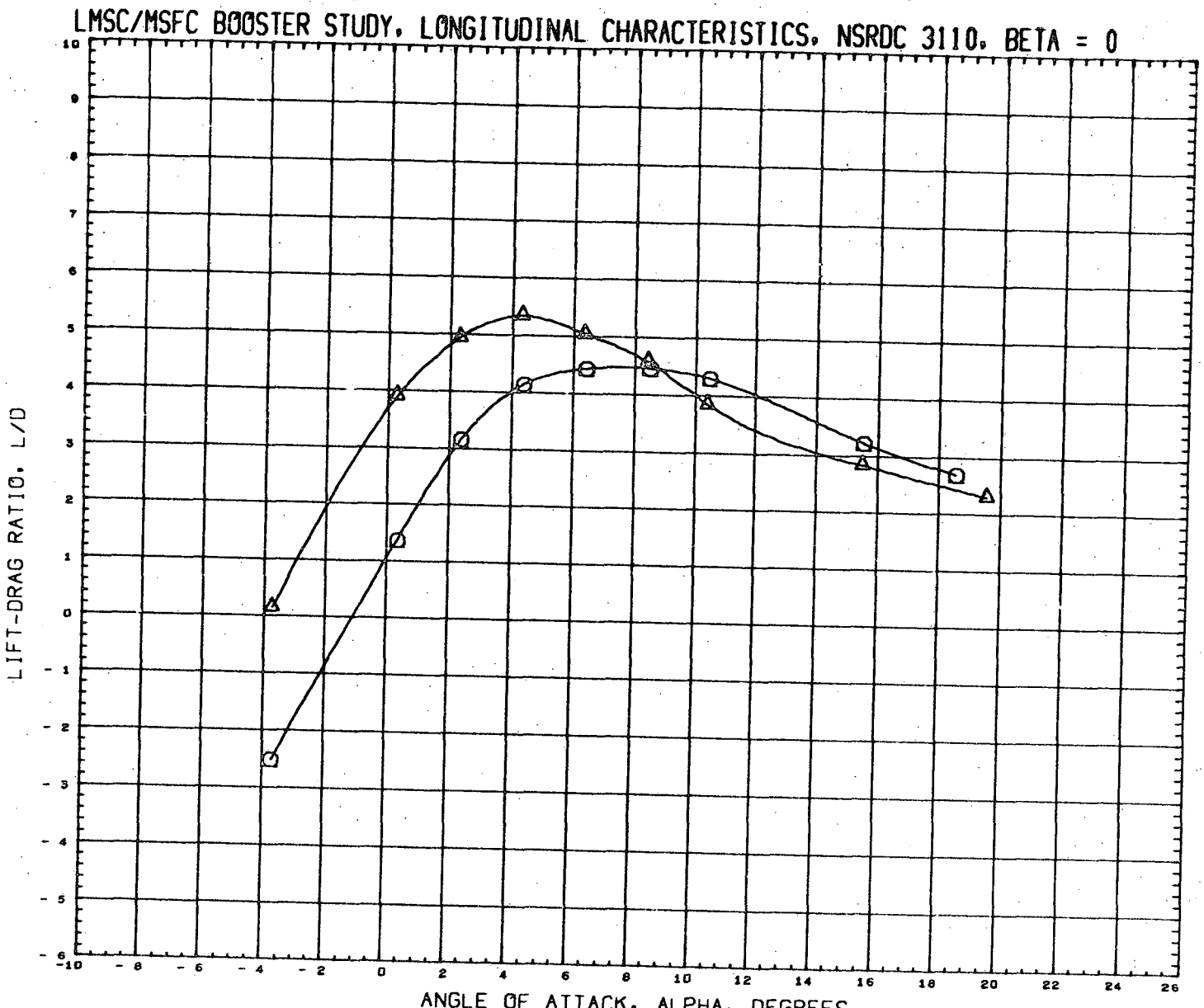
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2197) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 1.000 | 0.000 | 1.000 |
| (RN2229) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 1.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

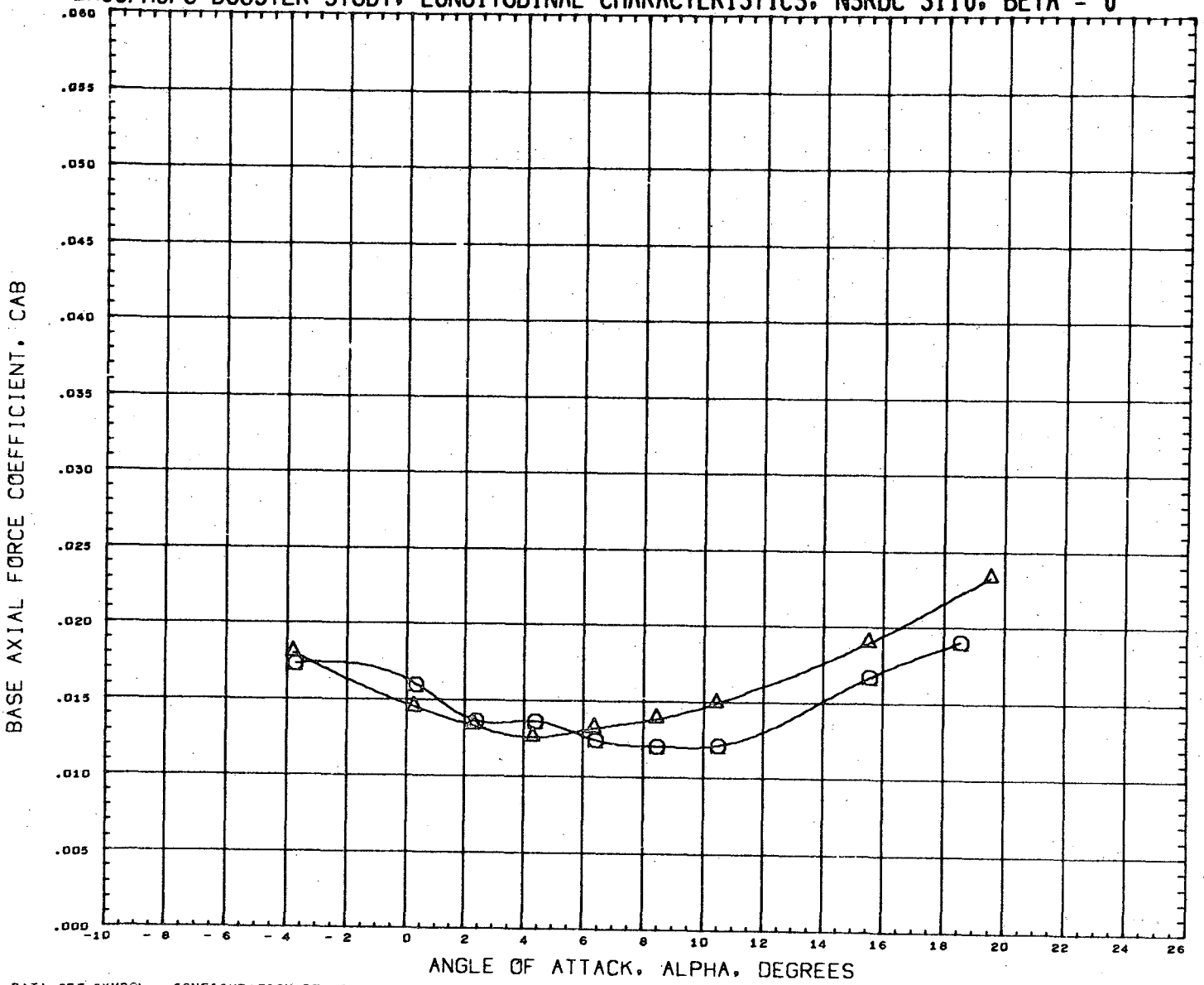



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2197) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 1.000 | 0.000 | 1.000 |
| (RN2229) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 1.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

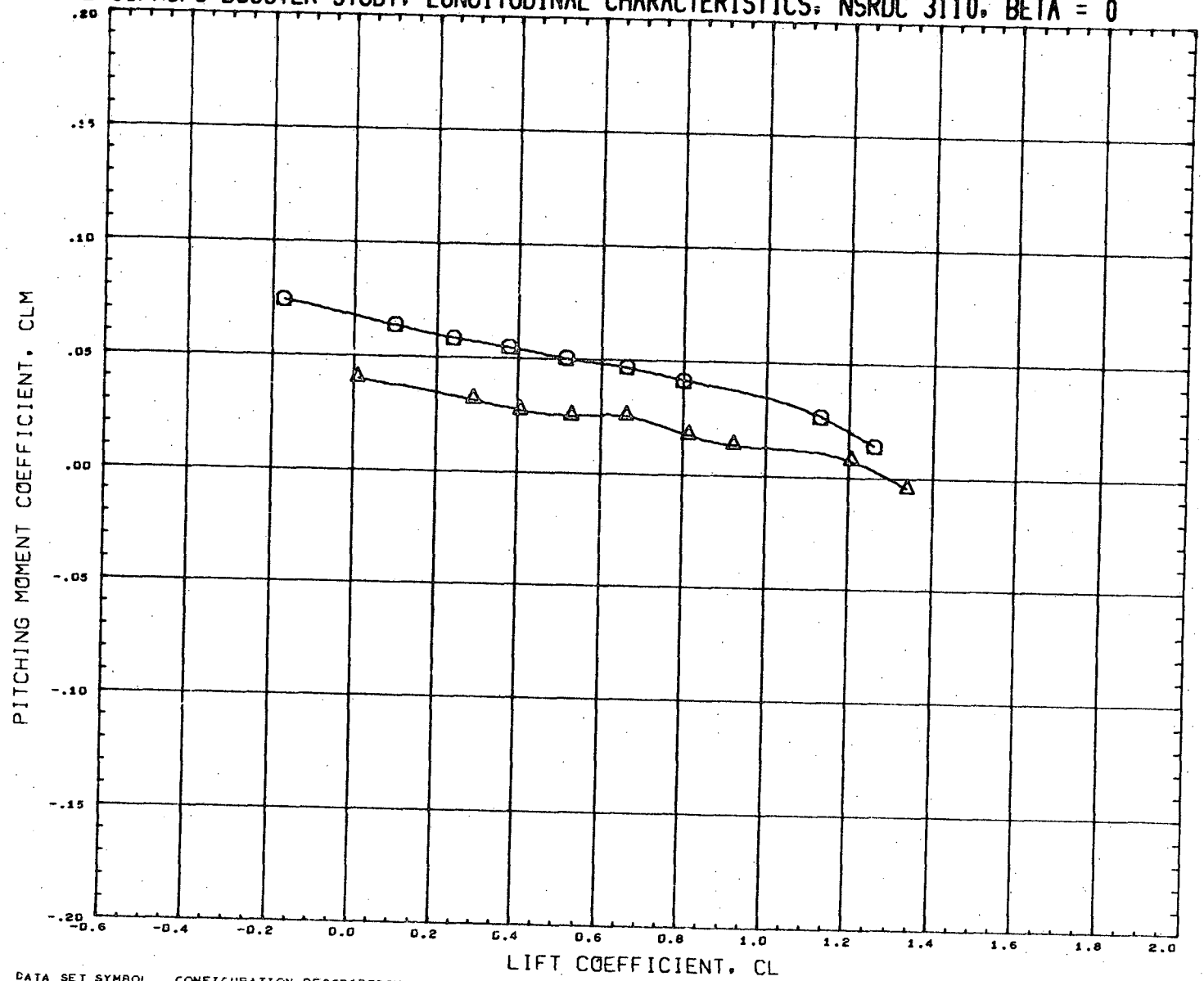



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2197) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 1.000 | 0.000 | 1.000 |
| (RN2229) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 1.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

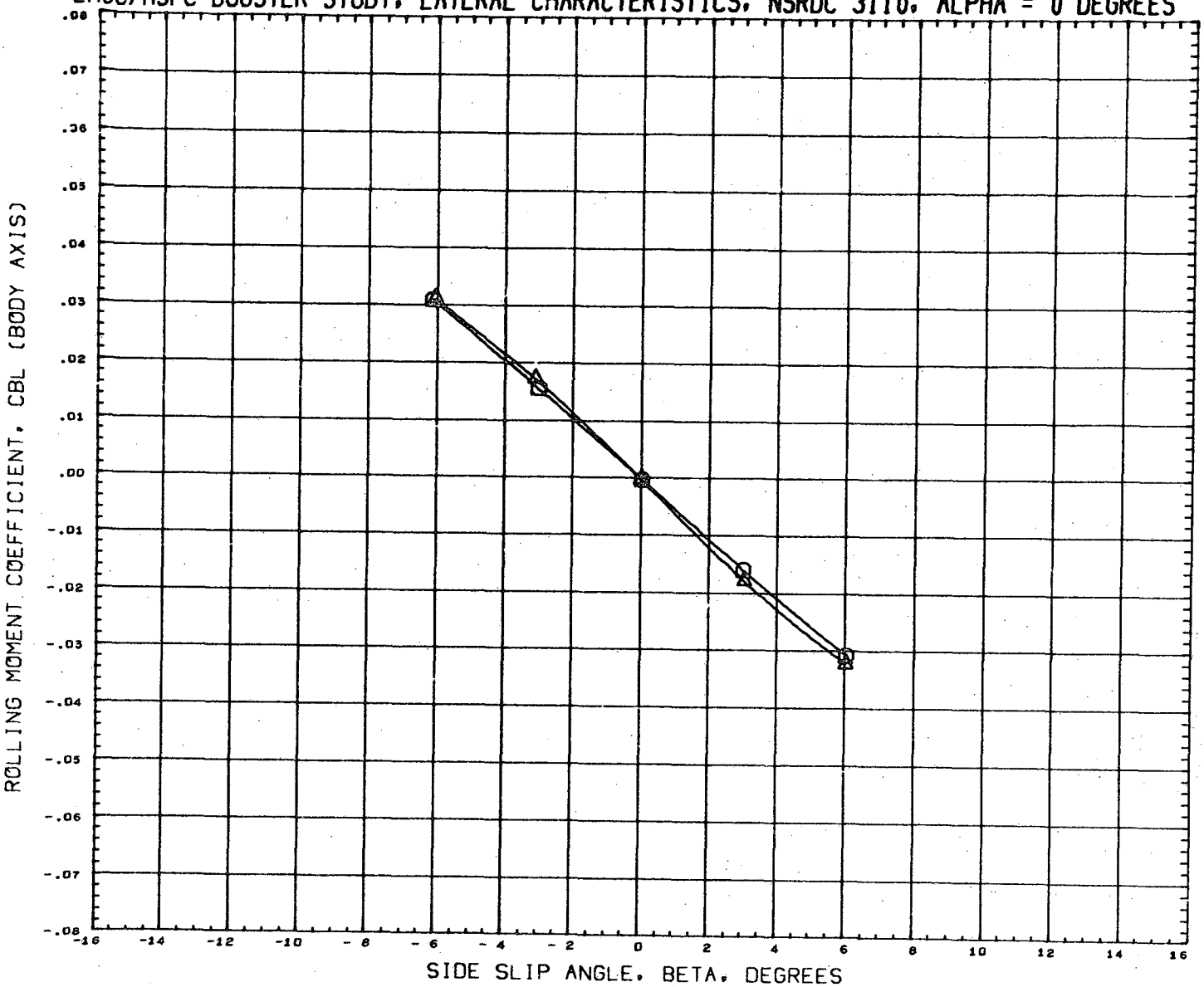



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2197) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 1.000 | 0.000 | 1.000 |
| (RN2229) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 1.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

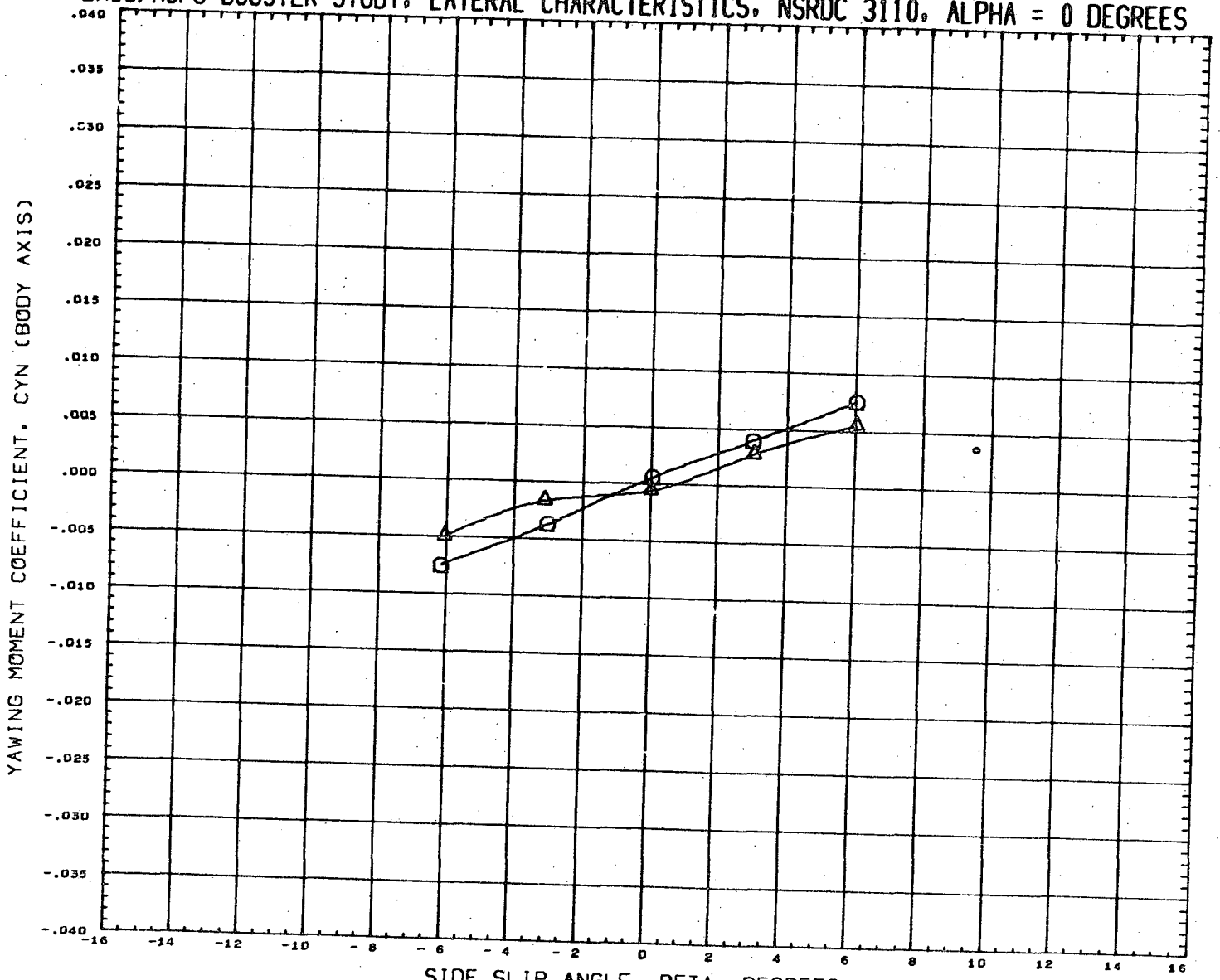



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2198) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 1.000 | 0.000 | 1.000 |
| (RN2230) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 1.000 | 3.000 | 1.000 |

MACH 0.382

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

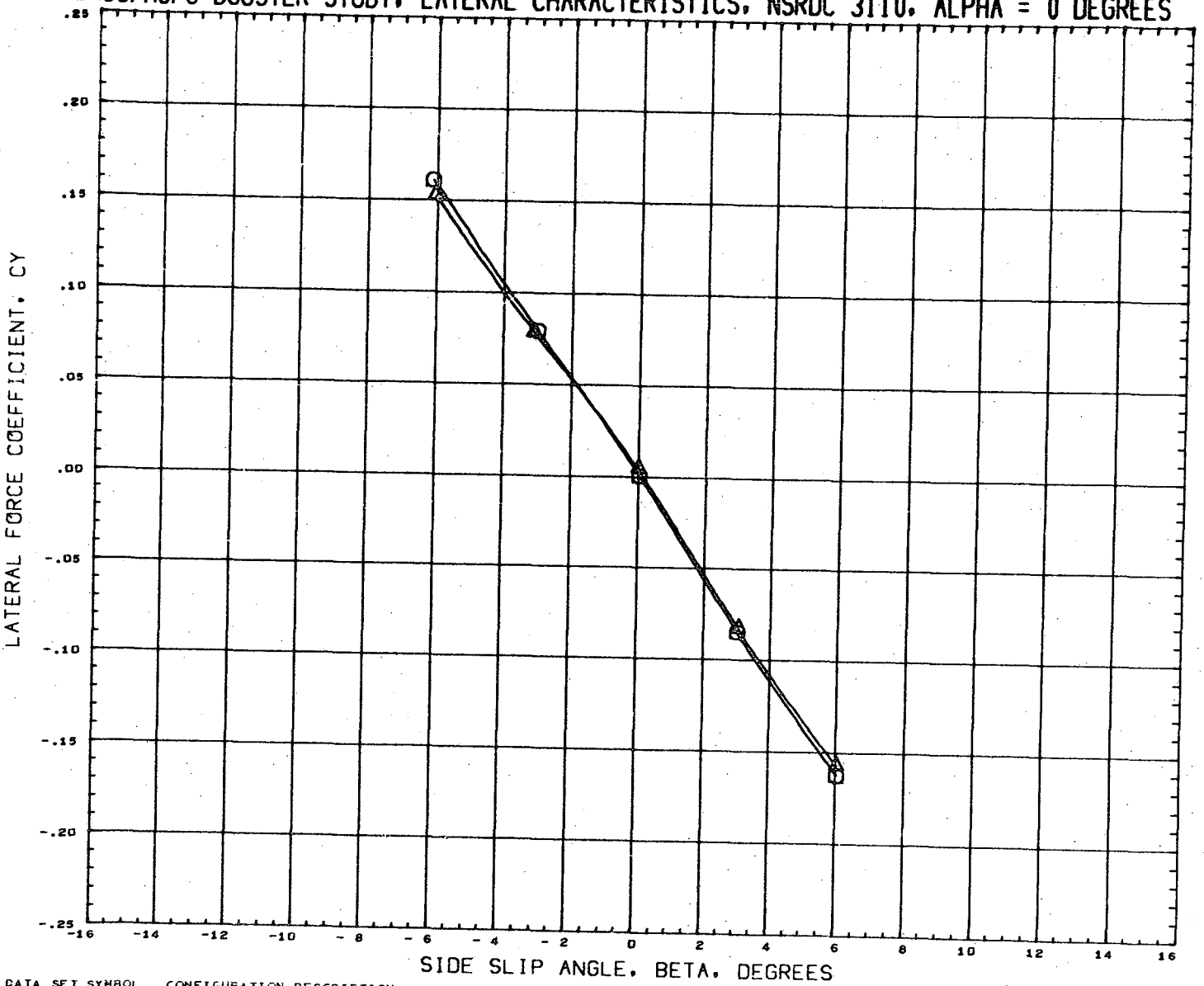



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2198) ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 1.000 | 0.000 | 1.000 |
| (RN2230) △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 1.000 | 3.000 | 1.000 |

MACH 0.382

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

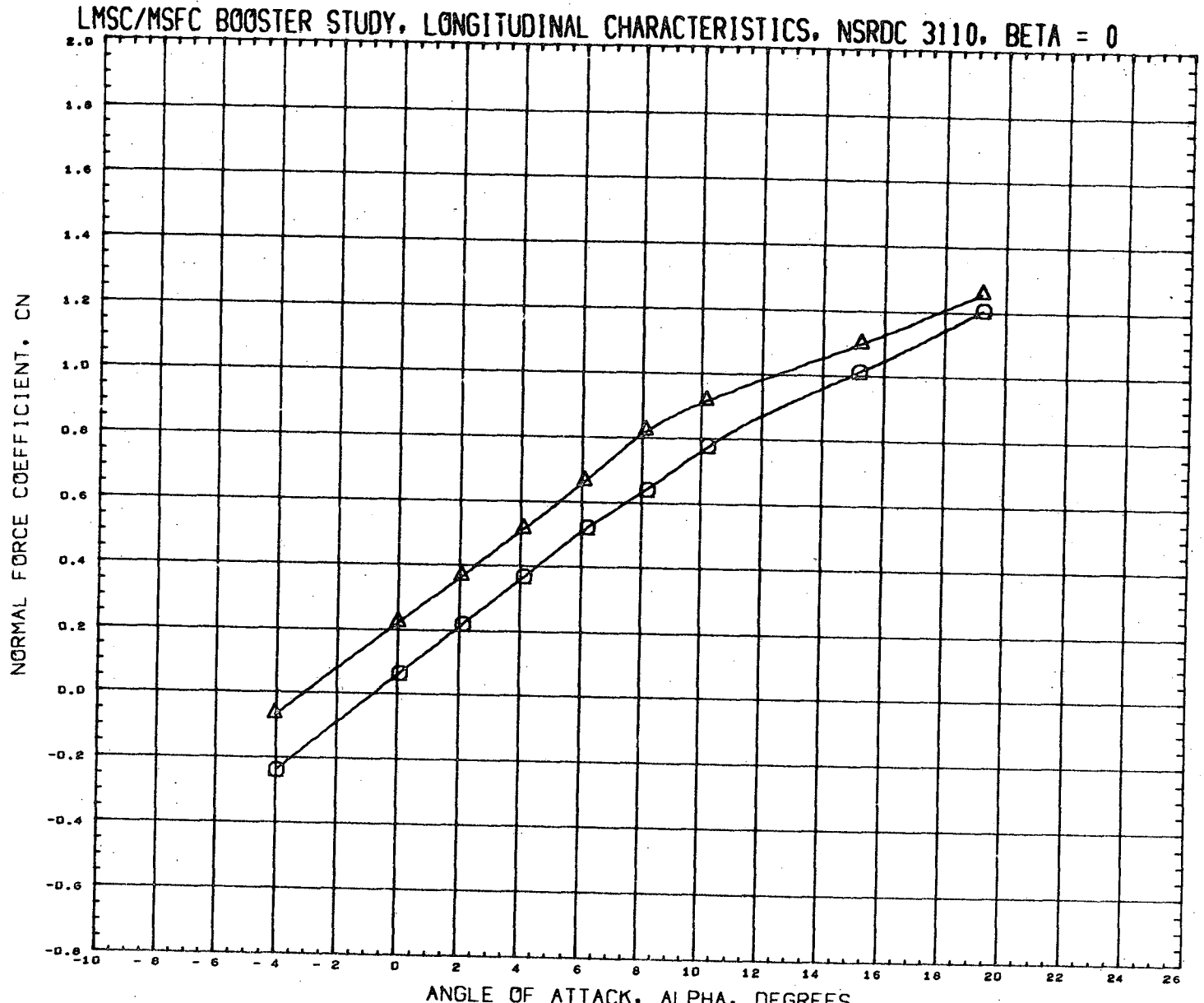



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2198) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 1.000 | 0.000 | 1.000 |
| (RN2230) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 1.000 | 3.000 | 1.000 |

MACH 0.382

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

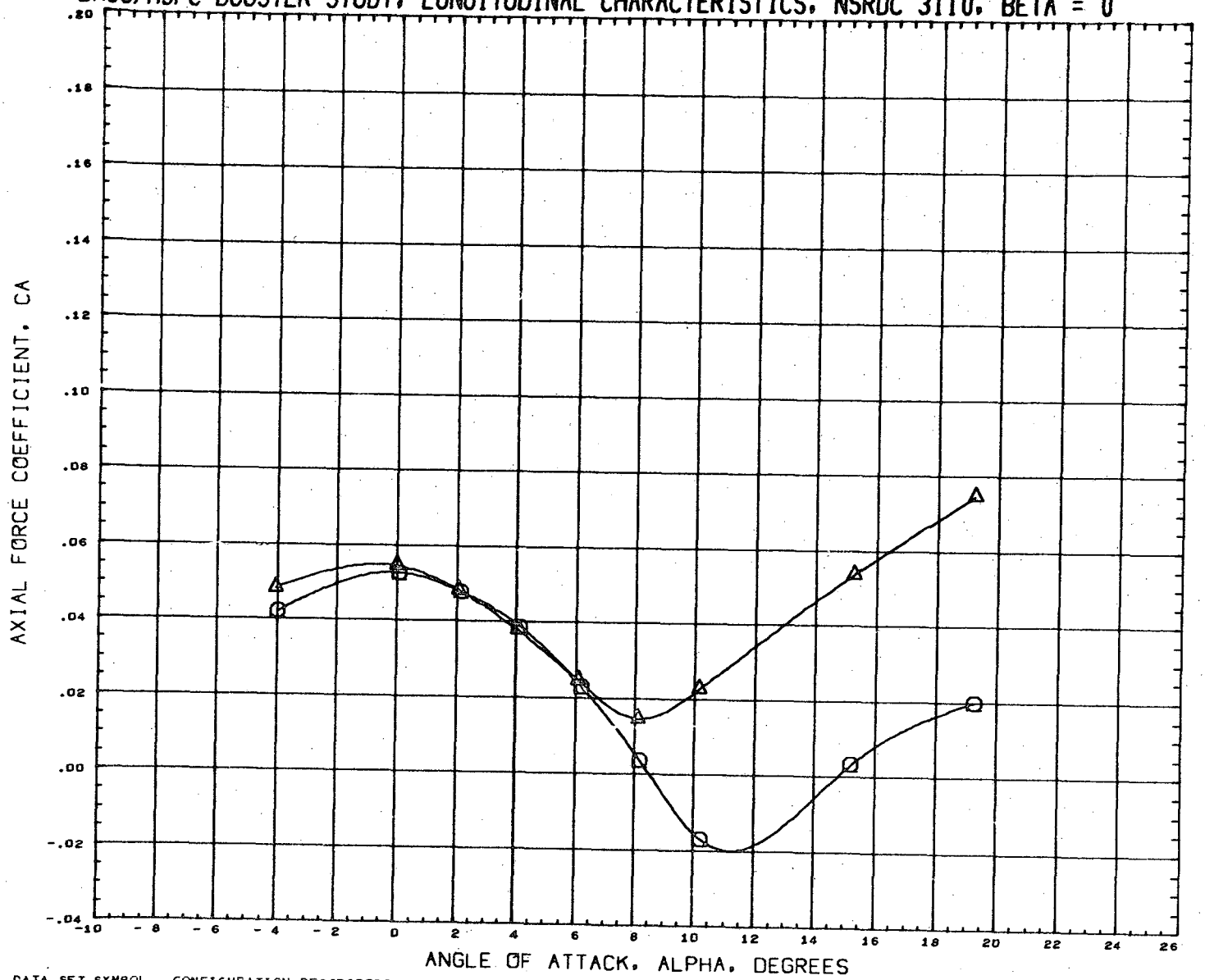



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2201) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 2.000 | 0.000 | 1.000 |
| (RN2233) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 2.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

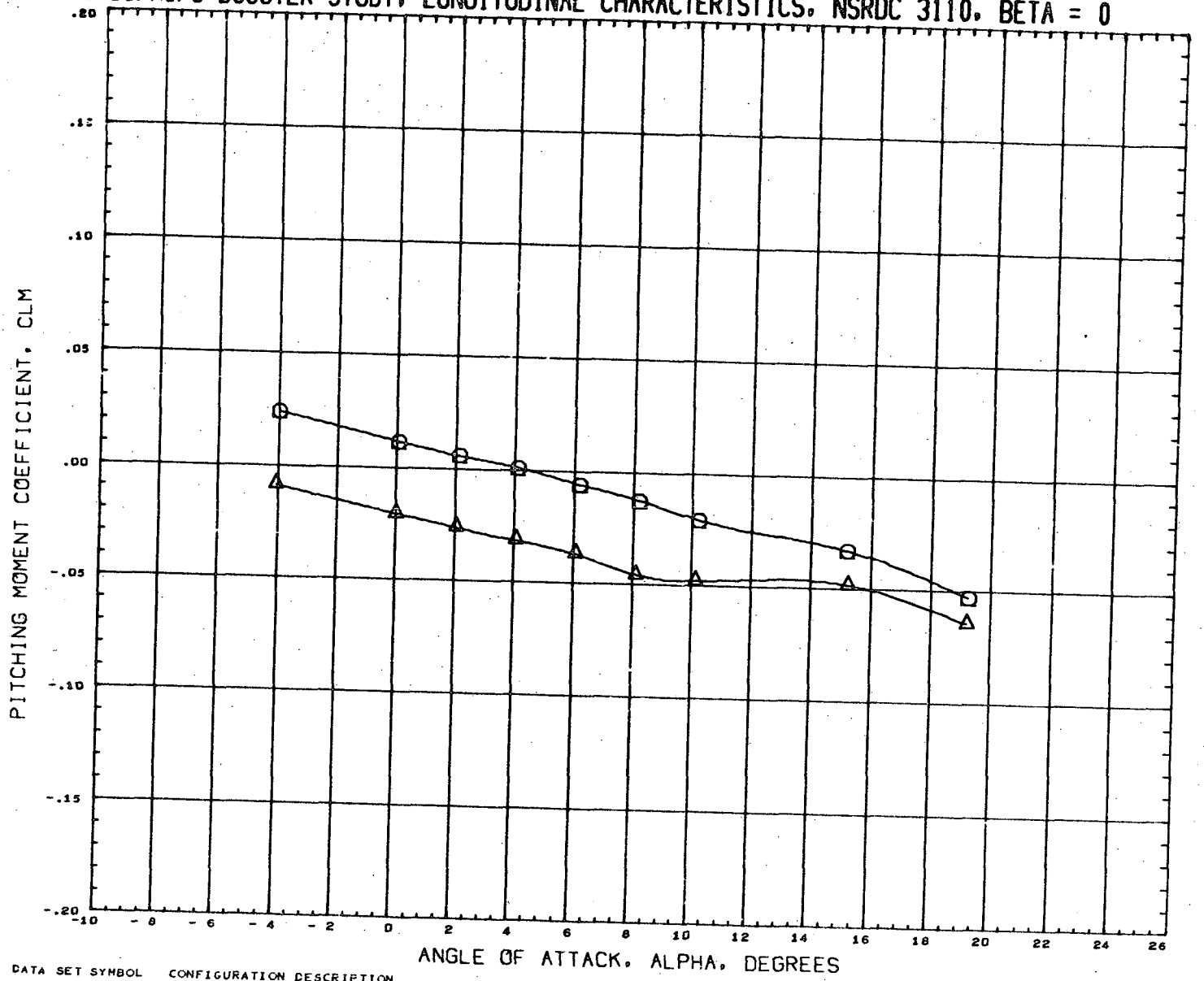



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDFOS | INCIDW | WNGFOS |
|---|---|---|---|---|---|
| (RN2201) ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 2.000 | 0.000 | 1.000 |
| (RN2233) △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 2.000 | 3.000 | 1.000 |

MACH 0.391

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

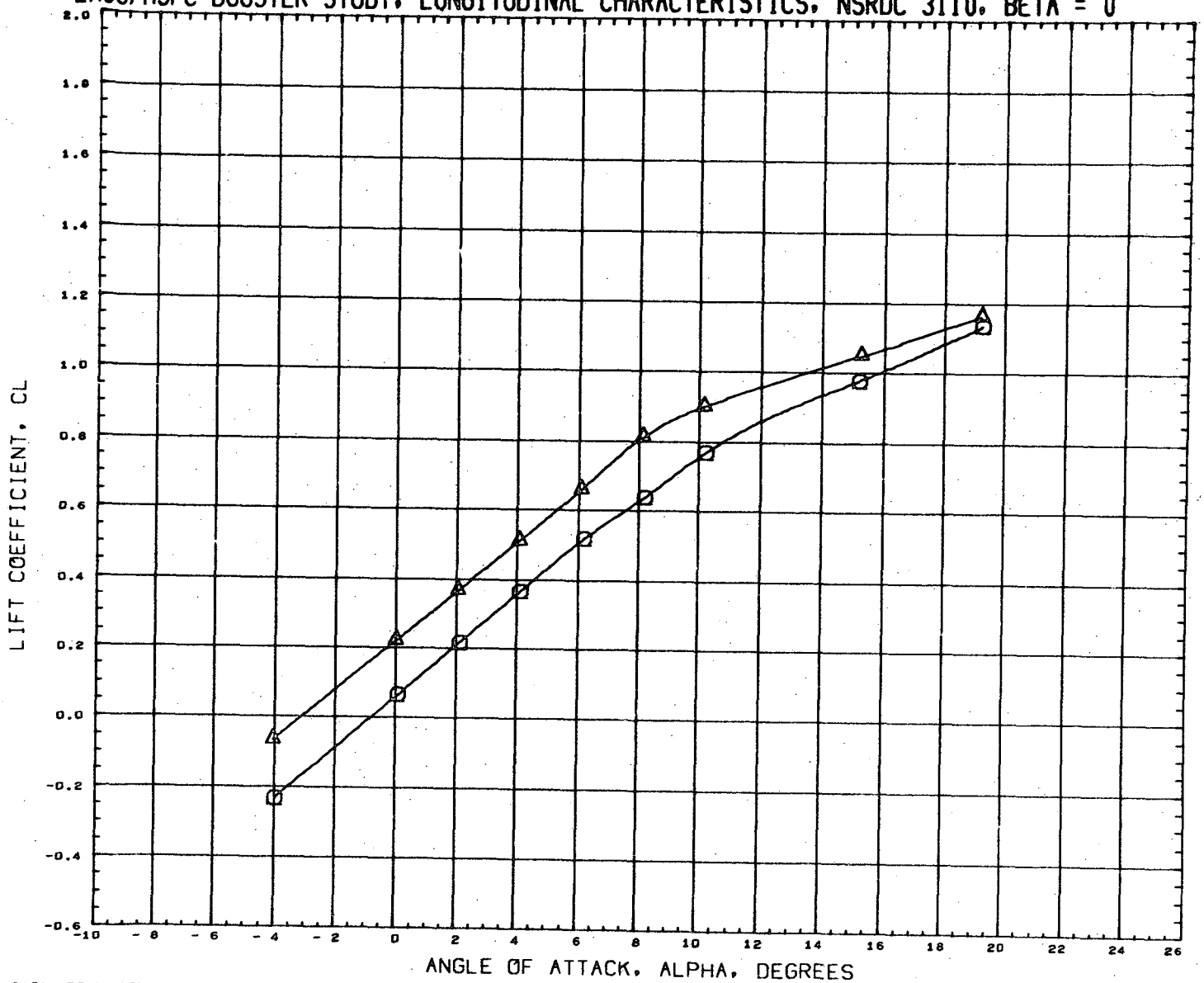



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2201) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 2.000 | 0.000 | 1.000 |
| (RN2233) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 2.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0



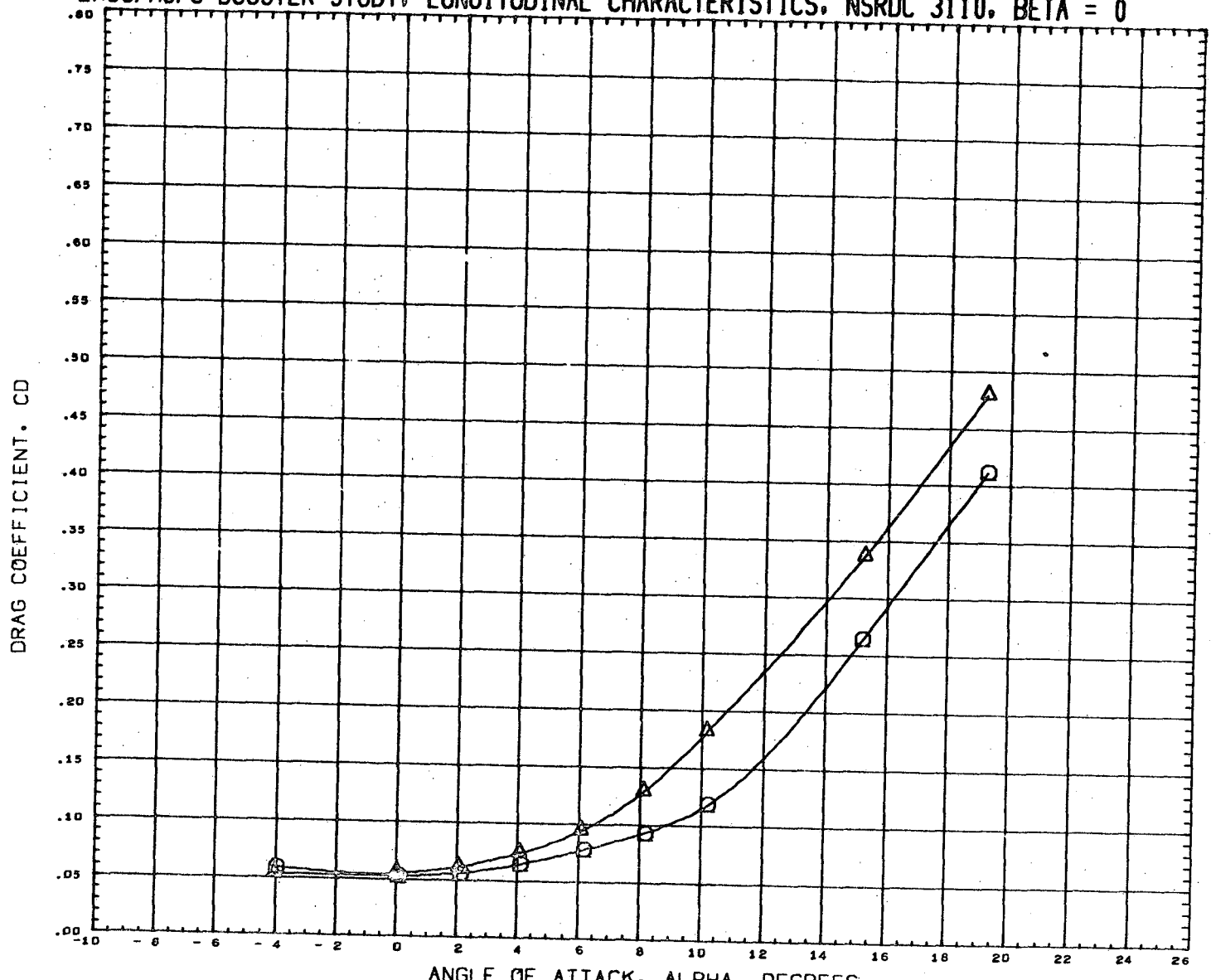

| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2201) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 2.000 | 0.000 | 1.000 |
| (RN2233) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 2.000 | 3.000 | 1.000 |

MACH 0.381

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

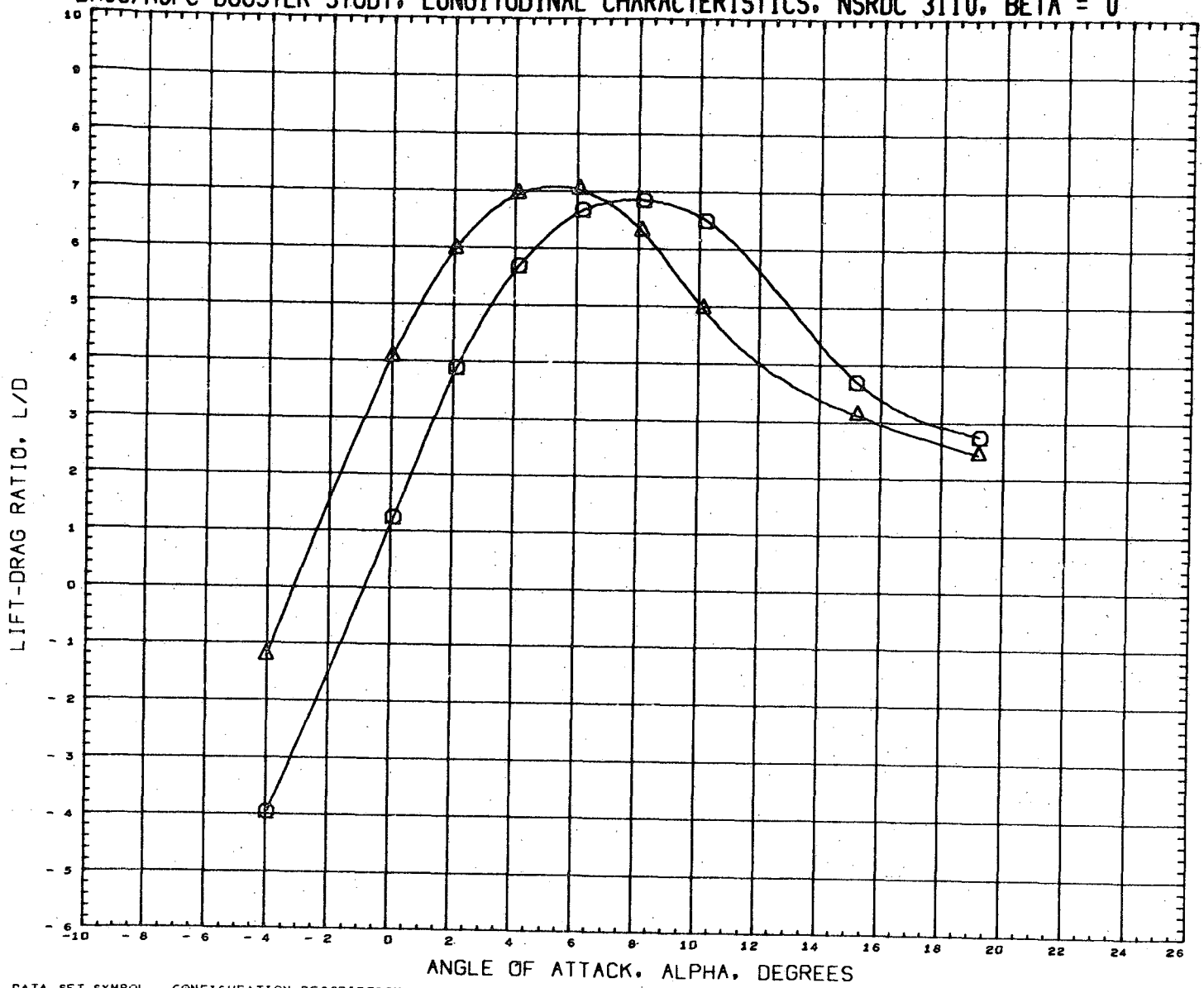



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2201) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 2.000 | 0.000 | 1.000 |
| (RN2233) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 2.000 | 3.000 | 1.000 |

MACH 0.301

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

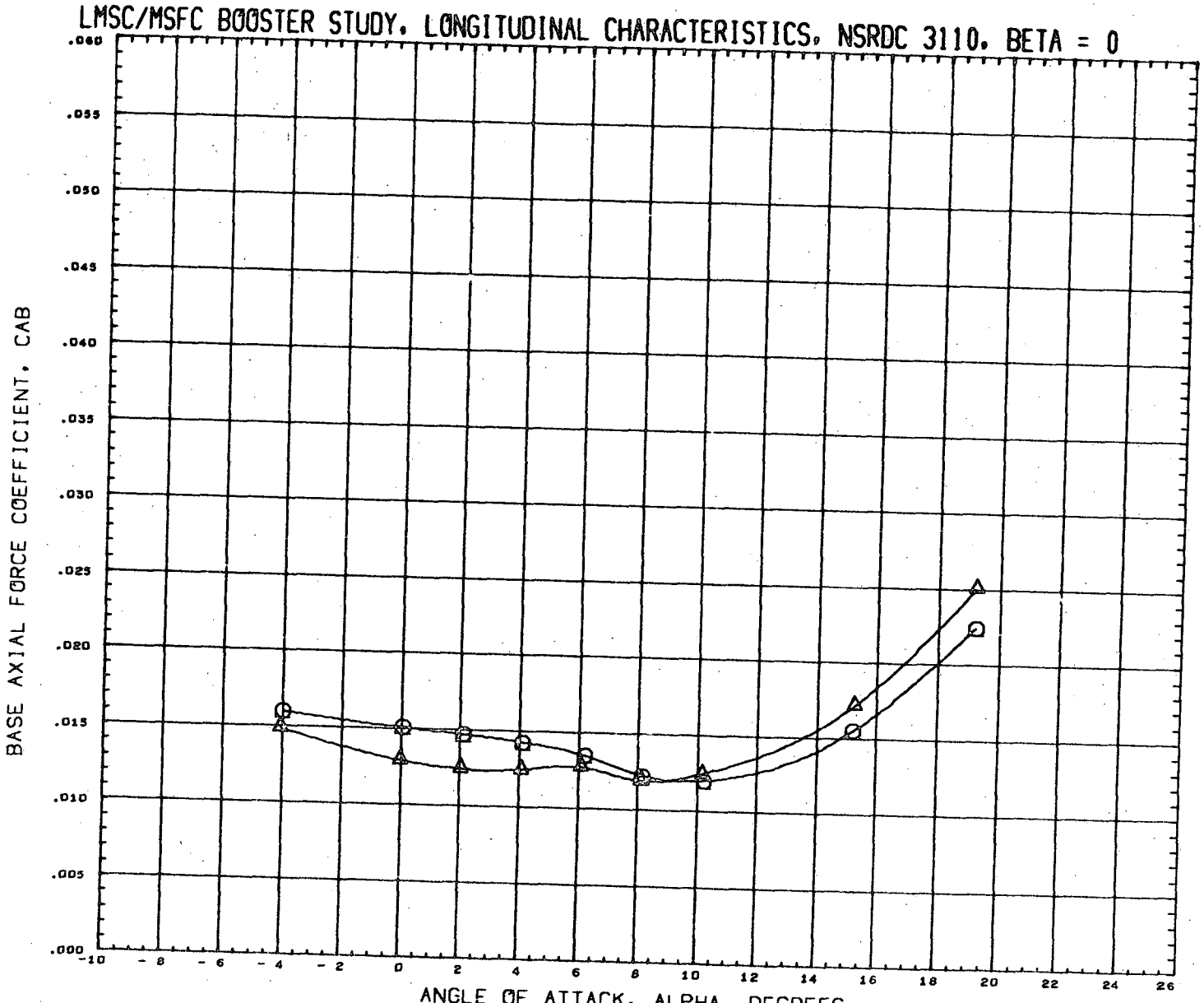
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2201) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 2.000 | 0.000 | 1.000 |
| (RN2233) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 2.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

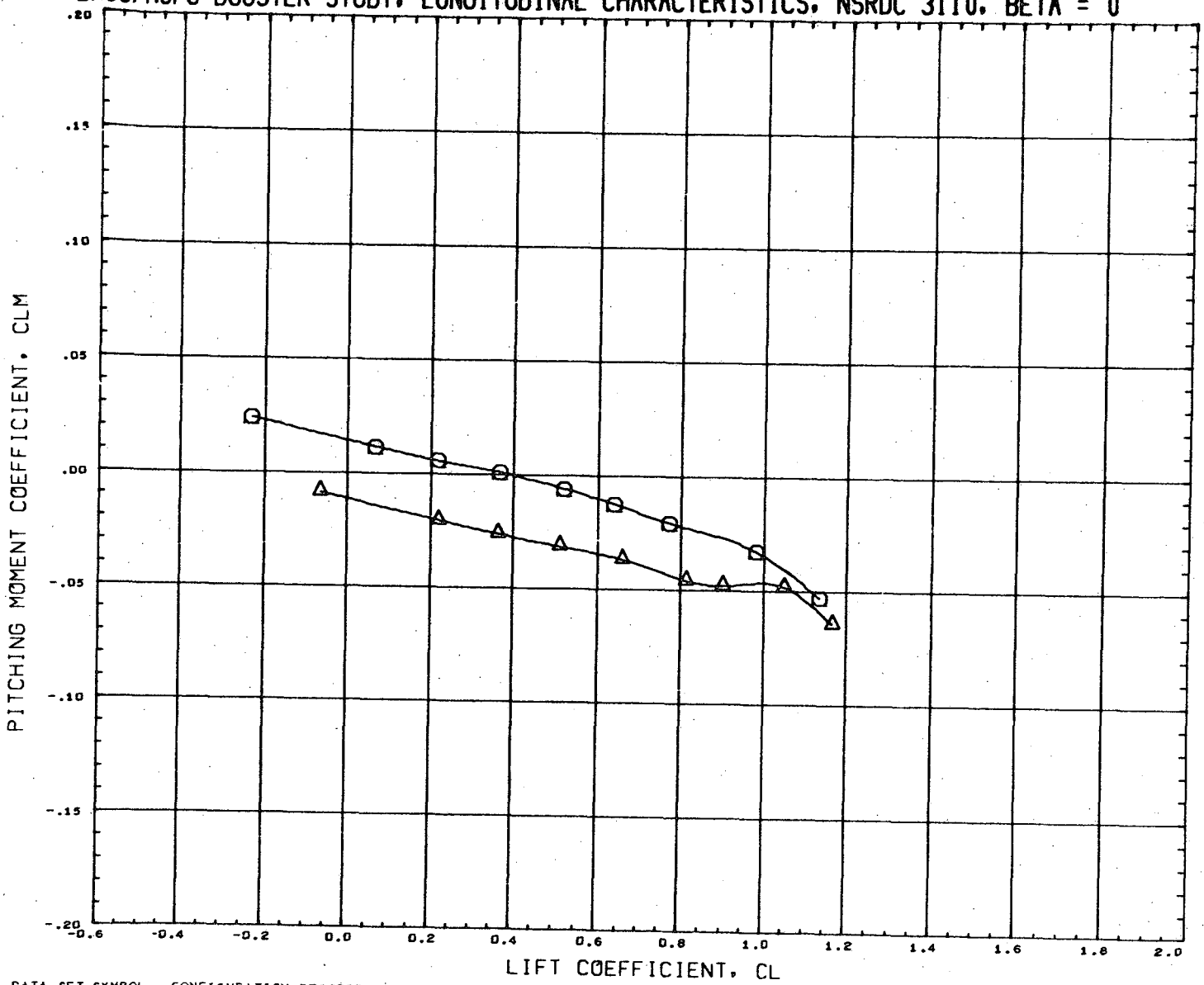



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2201) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 2.000 | 0.000 | 1.000 |
| (RN2233) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 2.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

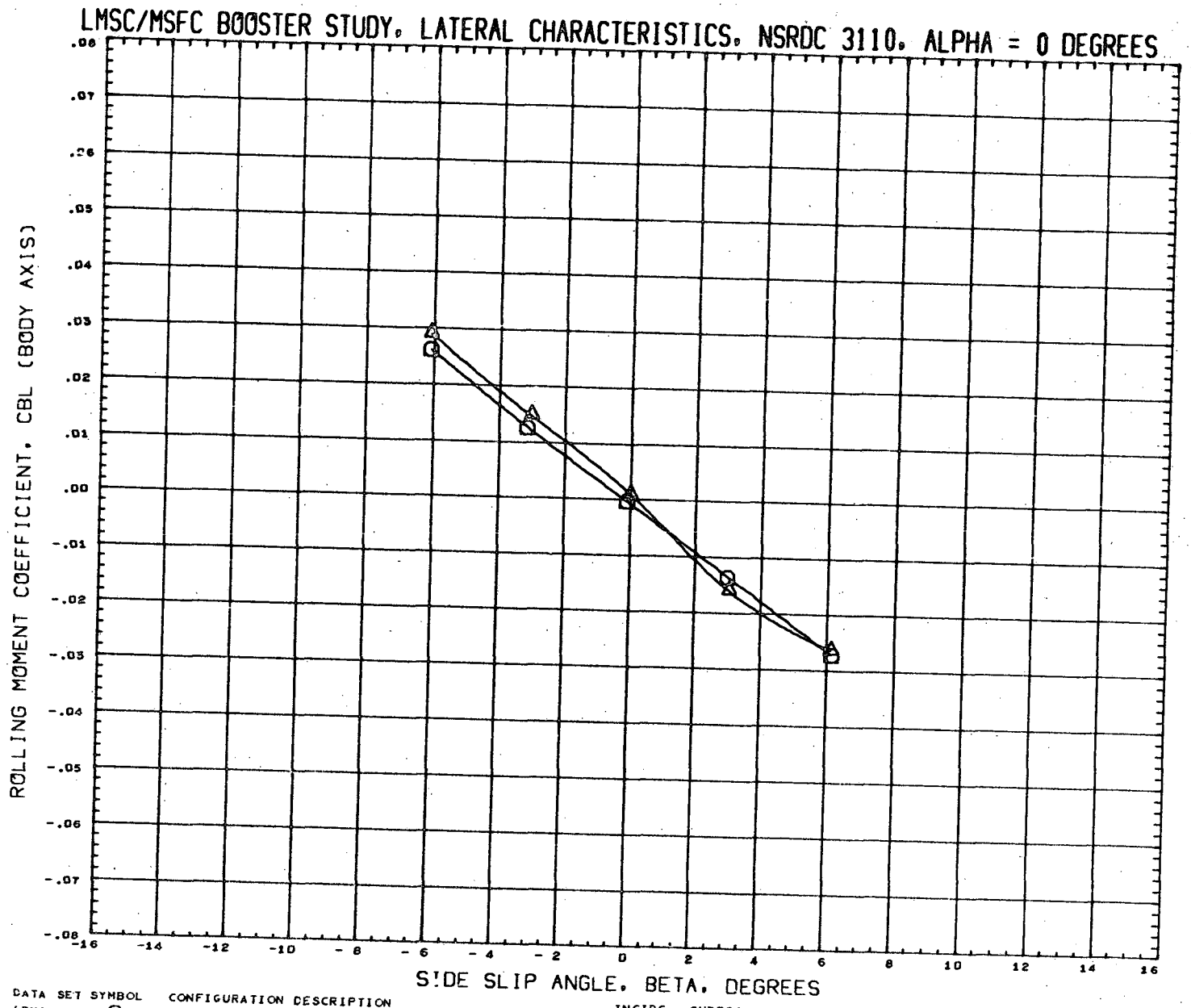



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2201) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 2.000 | 0.000 | 1.000 |
| (RN2233) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 2.000 | 3.000 | 1.000 |

MACH 0.381

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

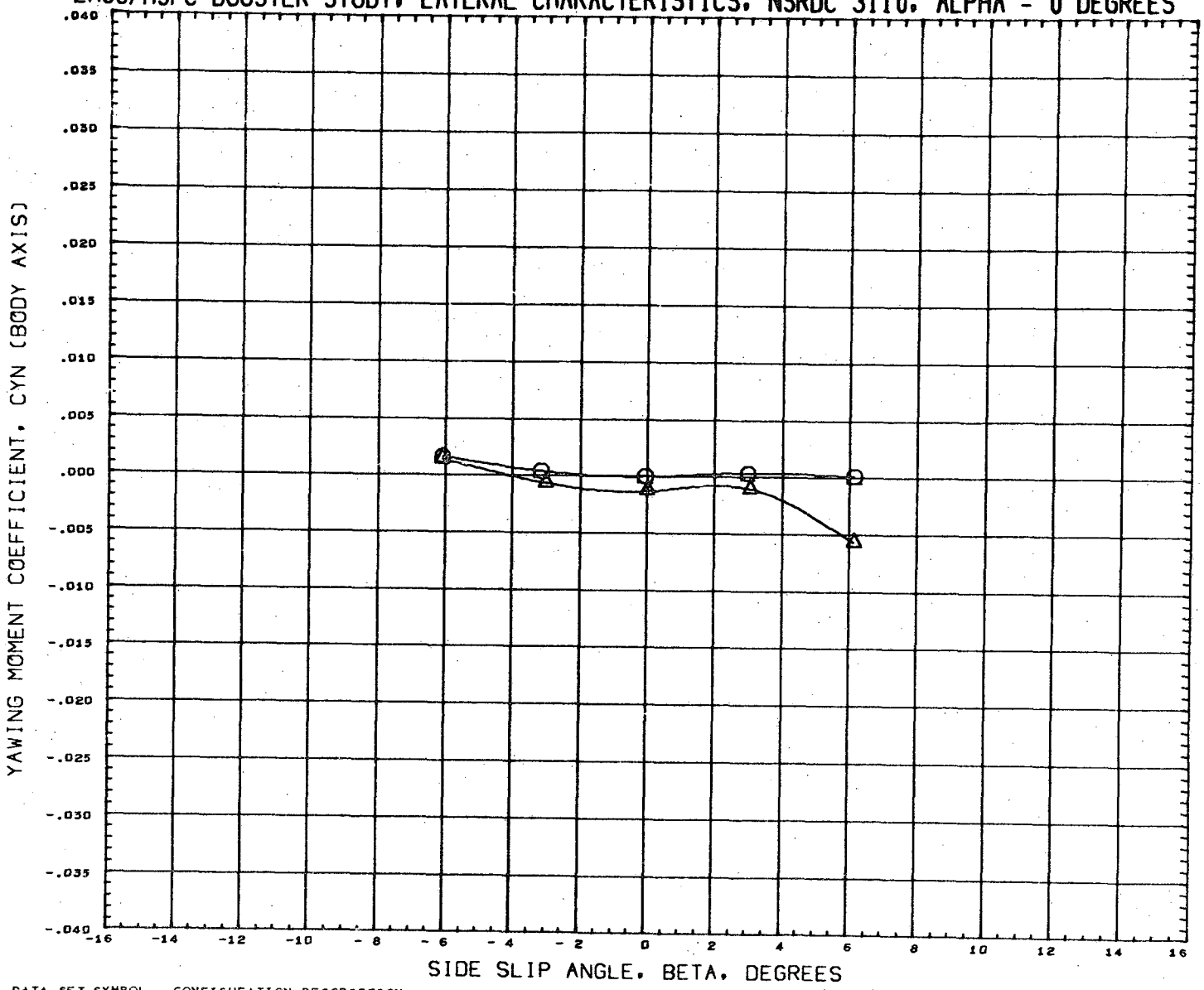



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2202) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 2.000 | 0.000 | 1.000 |
| (RN2234) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 2.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

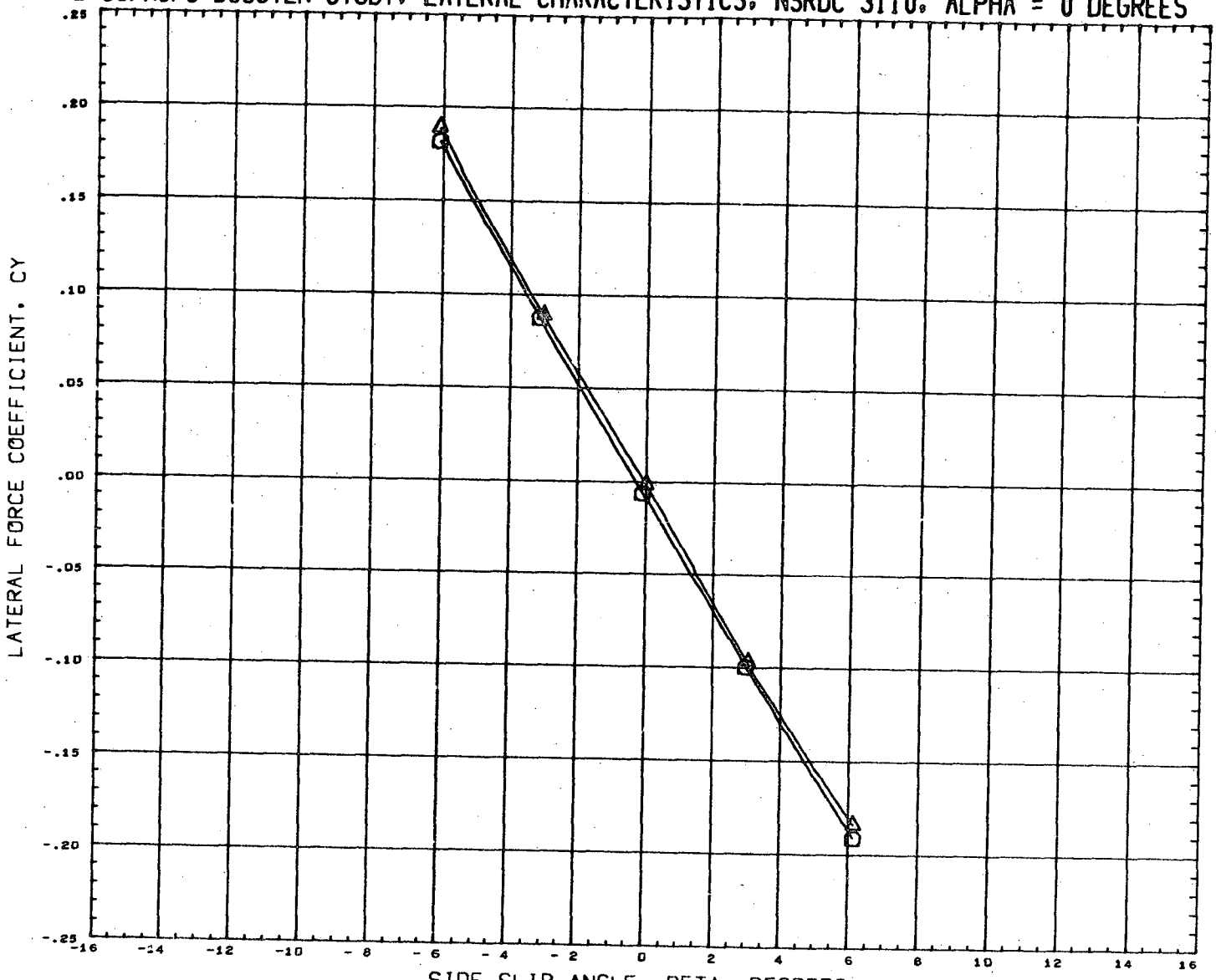



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2202) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 2.000 | 0.000 | 1.000 |
| (RN2234) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 2.000 | 3.000 | 1.000 |

MACH 0.361

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

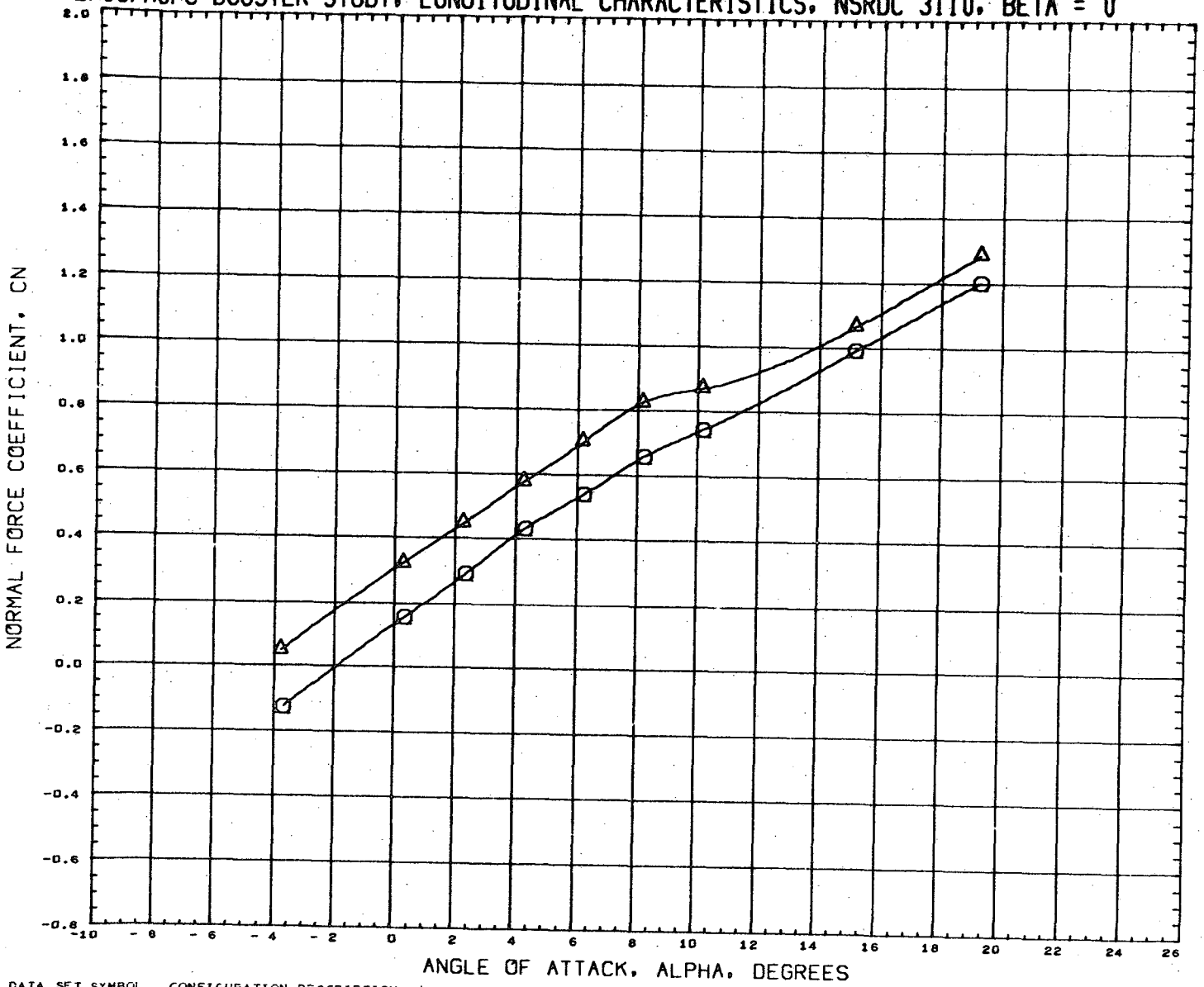



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2202) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 2.000 | 0.000 | 1.000 |
| (RN2234) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 2.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0



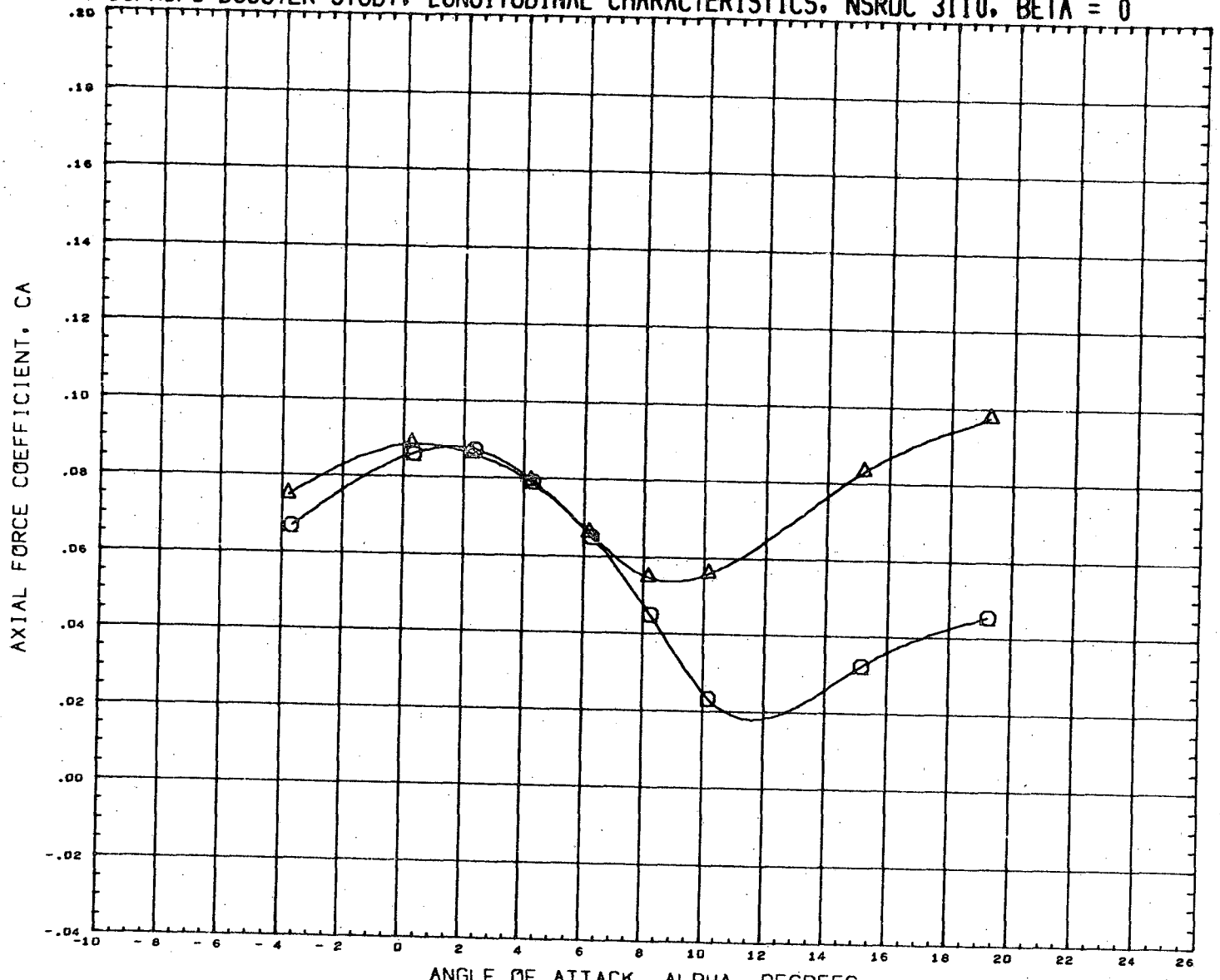

| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2205) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 2.000 | 0.000 | 1.000 |
| (RN2237) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 2.000 | 3.000 | 1.000 |

MACH 0.381

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0



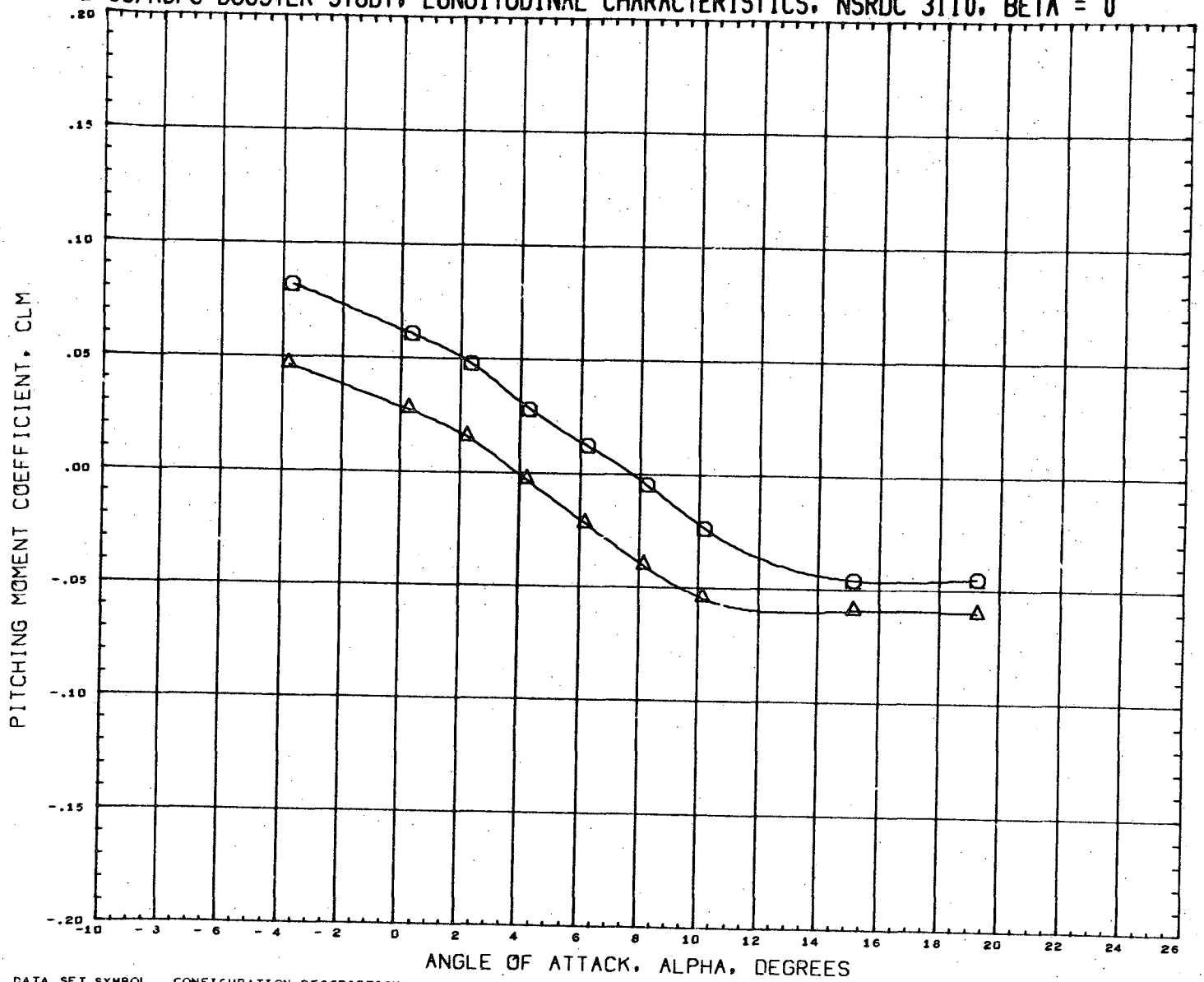

| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2205) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 2.000 | 0.000 | 1.000 |
| (RN2237) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 2.000 | 3.000 | 1.000 |

MACH 0.381

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

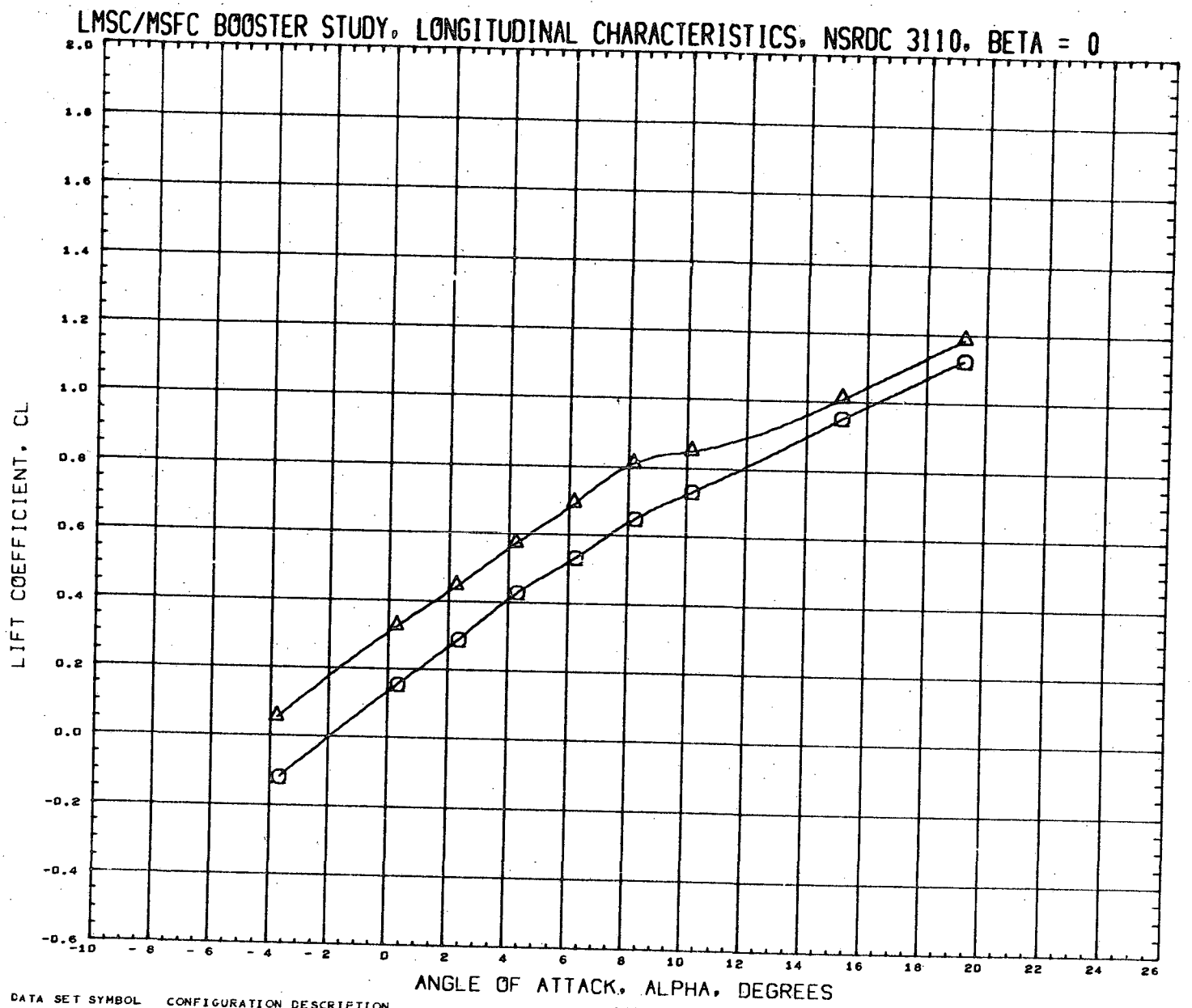
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2205) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 2.000 | 0.000 | 1.000 |
| (RN2237) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 2.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

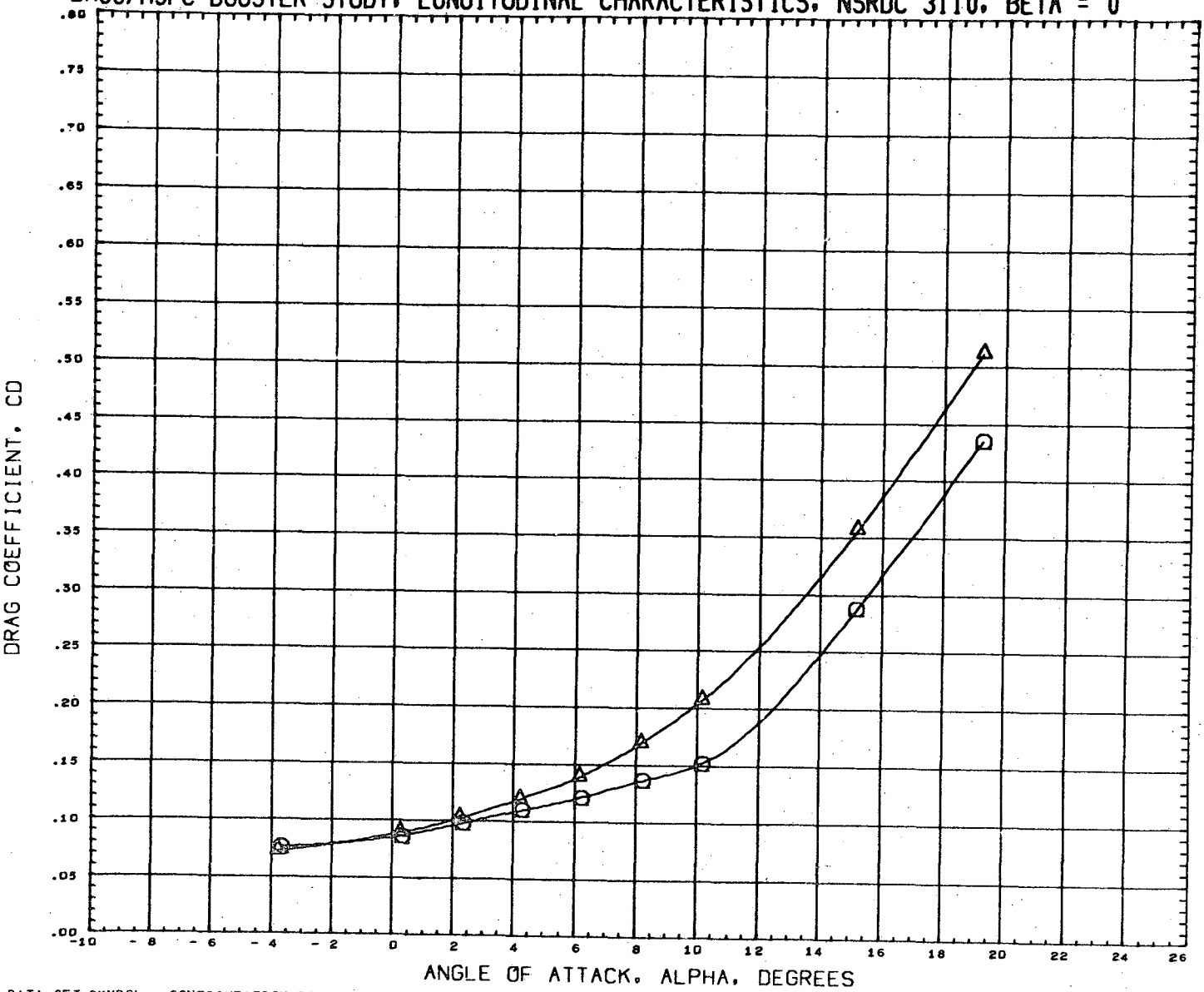



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2205) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 2.000 | 0.000 | 1.000 |
| (RN2237) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 2.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

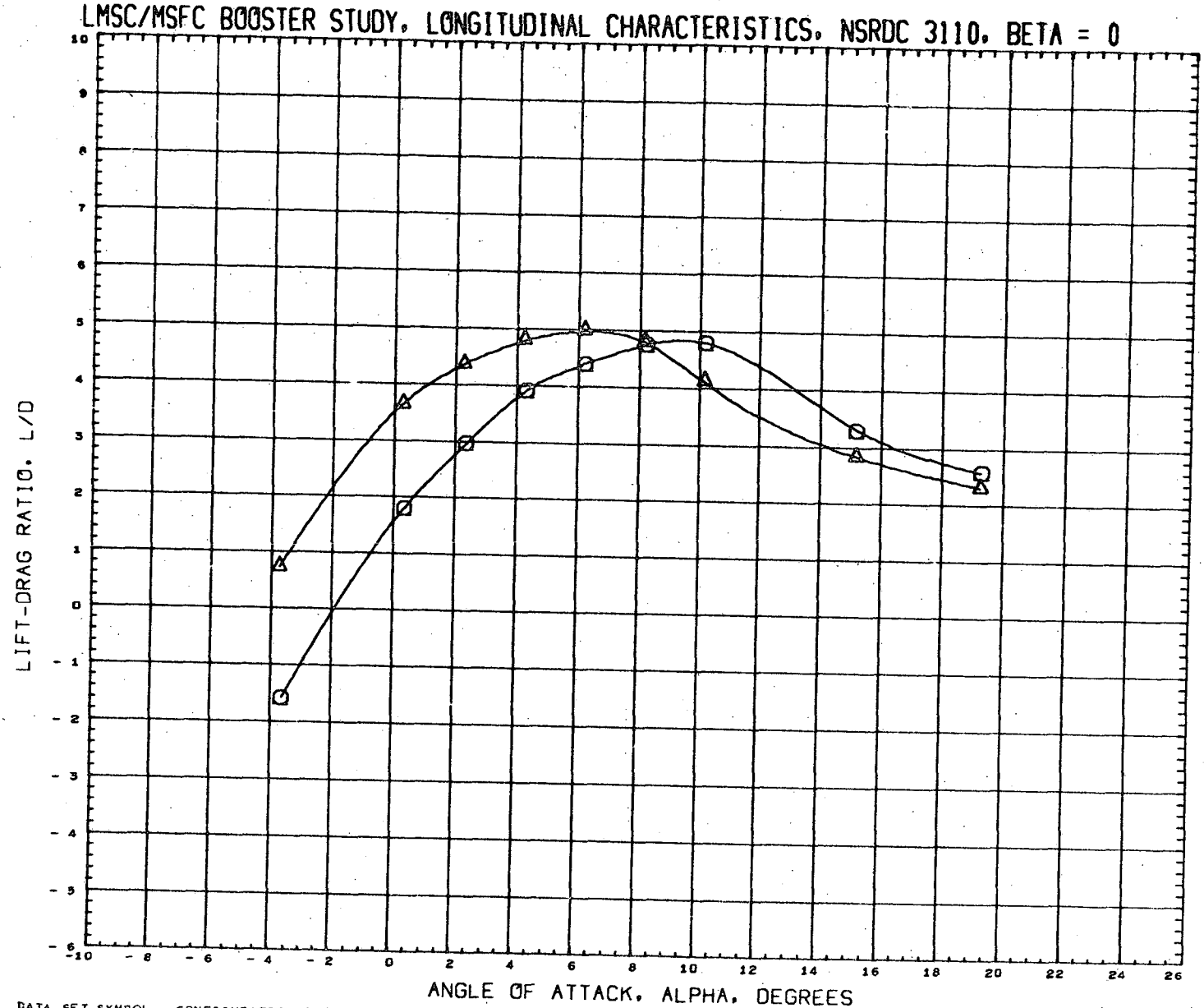
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2205) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 2.000 | 0.000 | 1.000 |
| (RN2237) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 2.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

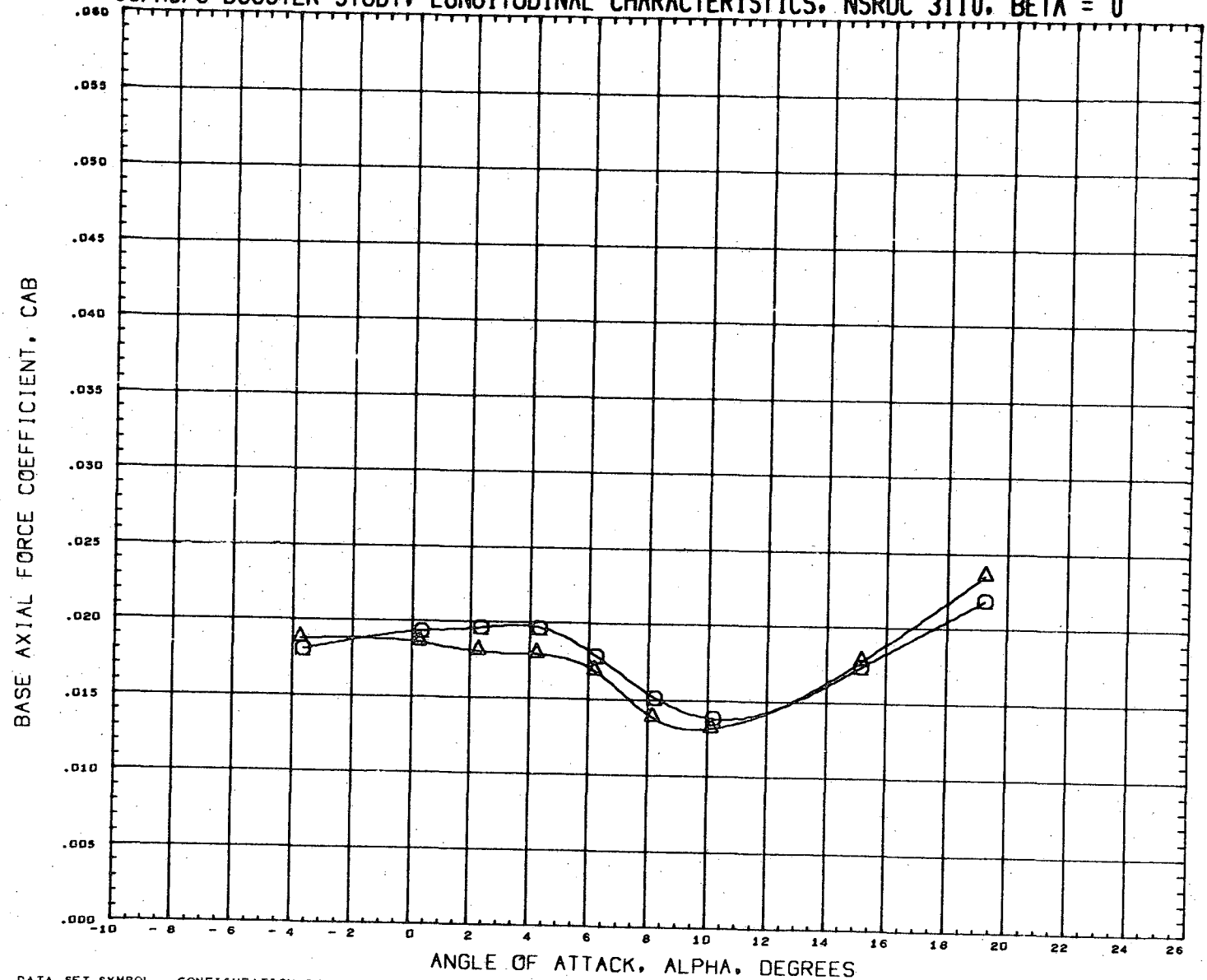



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2205) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 2.000 | 0.000 | 1.000 |
| (RN2237) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 2.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

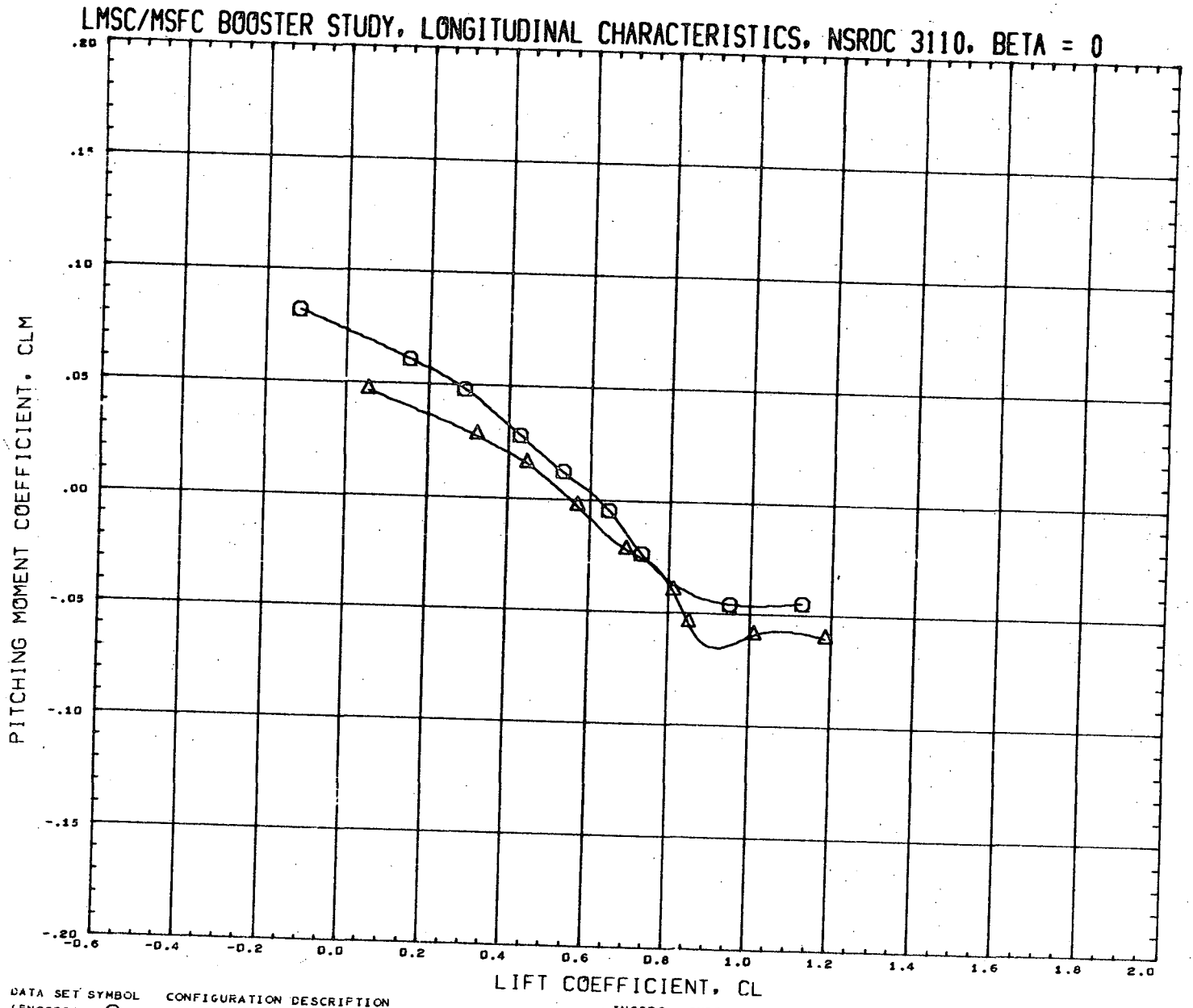
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2205) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 2.000 | 0.000 | 1.000 |
| (RN2237) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 2.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

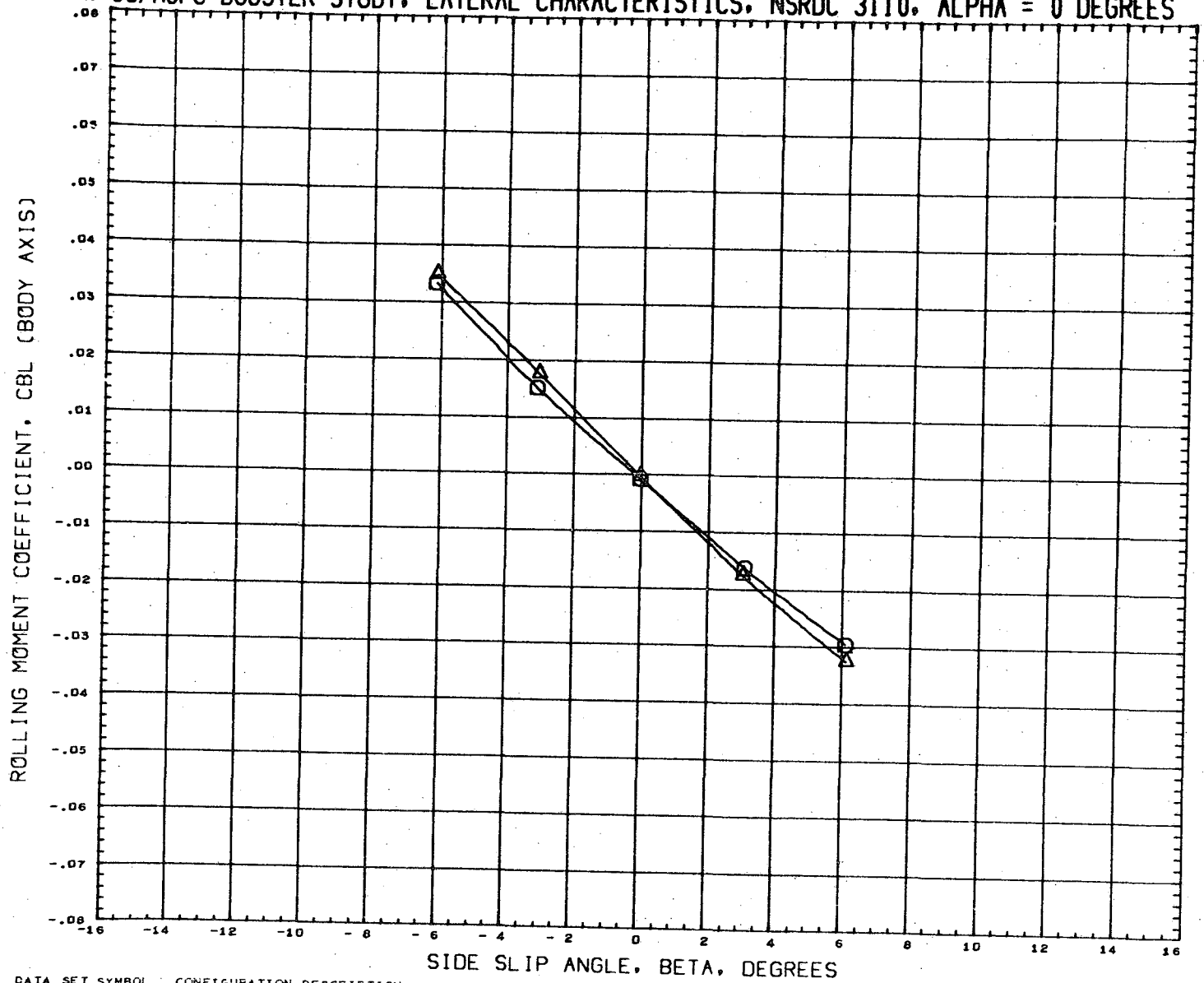



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDFOS | INCIDW | WNGFOS |
|---|---|---|---|---|---|---|
| (RN2205) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 2.000 | 0.000 | 1.000 |
| (RN2237) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 2.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

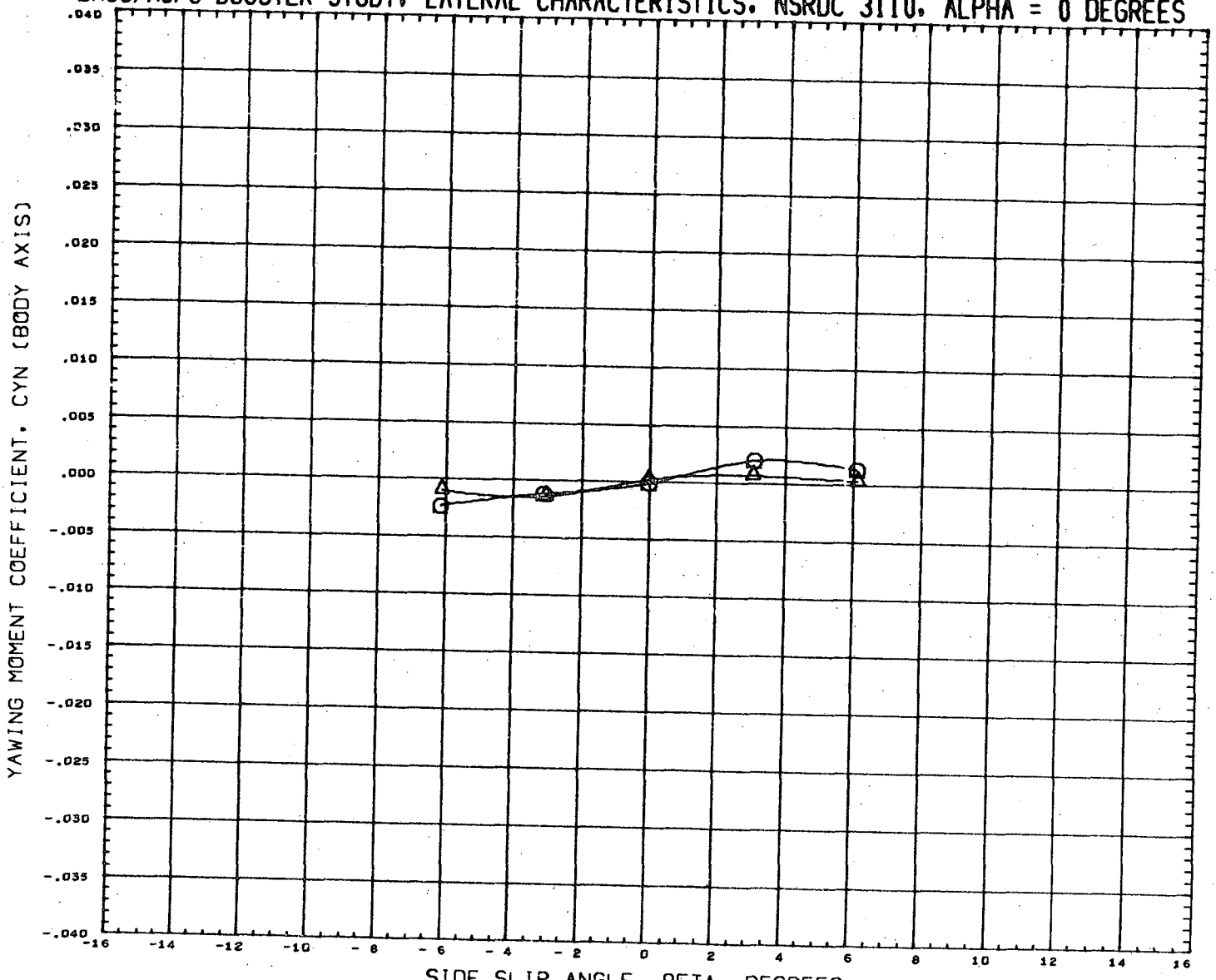



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2206) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 2.000 | 0.000 | 1.000 |
| (RN2238) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 2.000 | 3.000 | 1.000 |

MACH 0.382

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

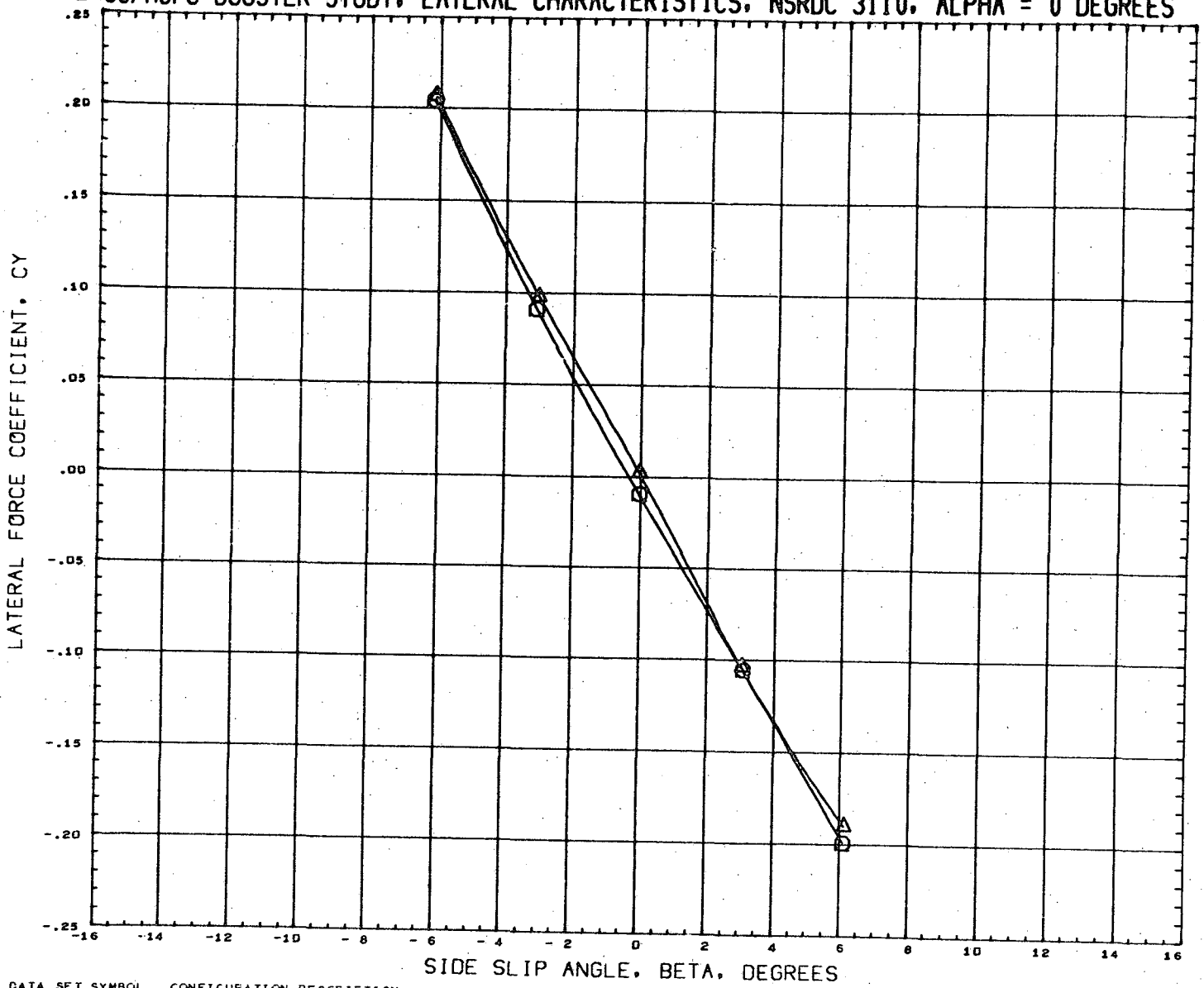



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDFOS | INCIDW | WNGFOS |
|---|---|---|---|---|---|---|
| (RN2206) | ♀ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 2.000 | 0.000 | 1.000 |
| (RN2238) | ♁ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 2.000 | 3.000 | 1.000 |

MACH 0.382

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

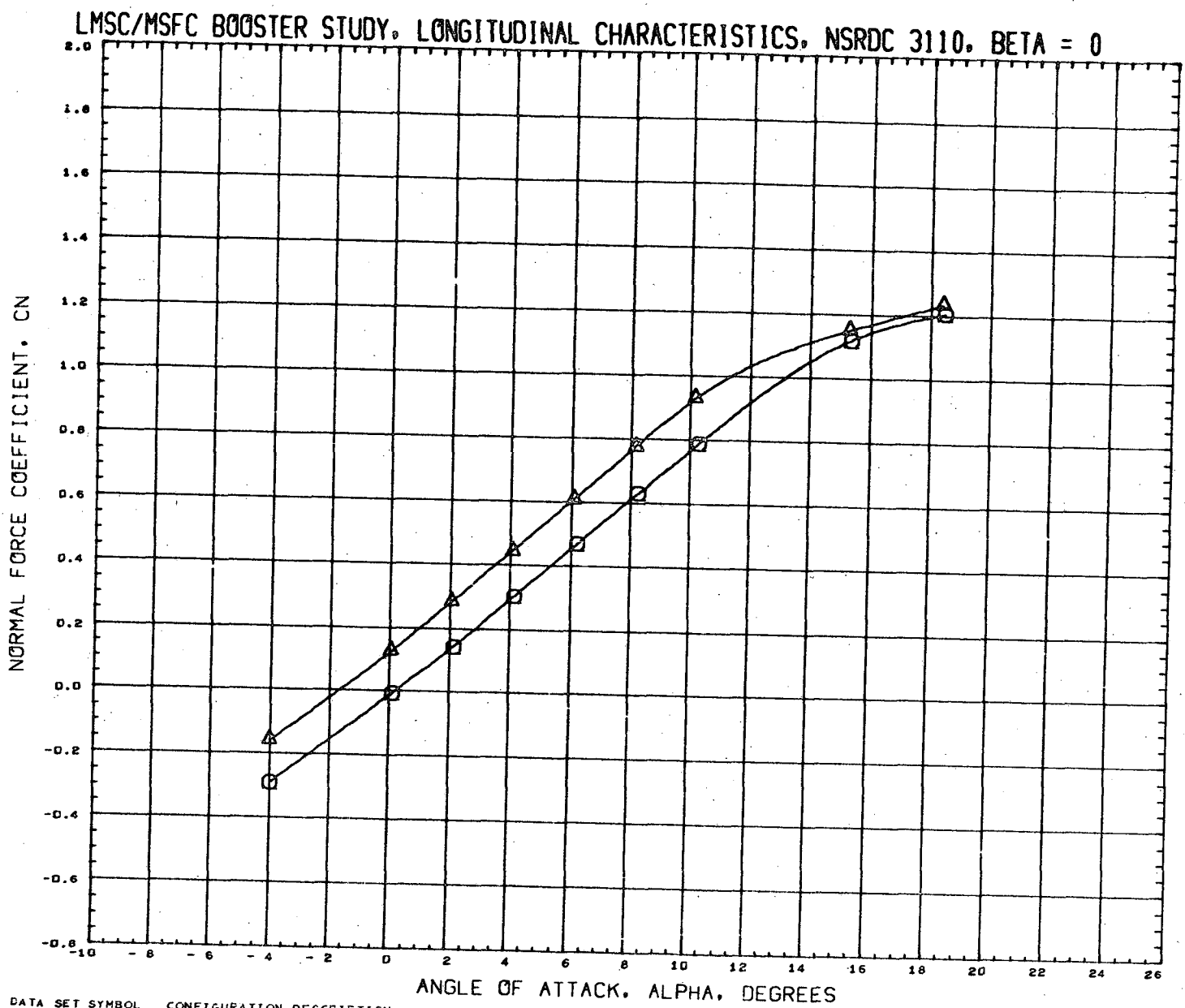
# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2206) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 2.000 | 0.000 | 1.000 |
| (RN2238) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 2.000 | 3.000 | 1.000 |

MACH 0.382

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

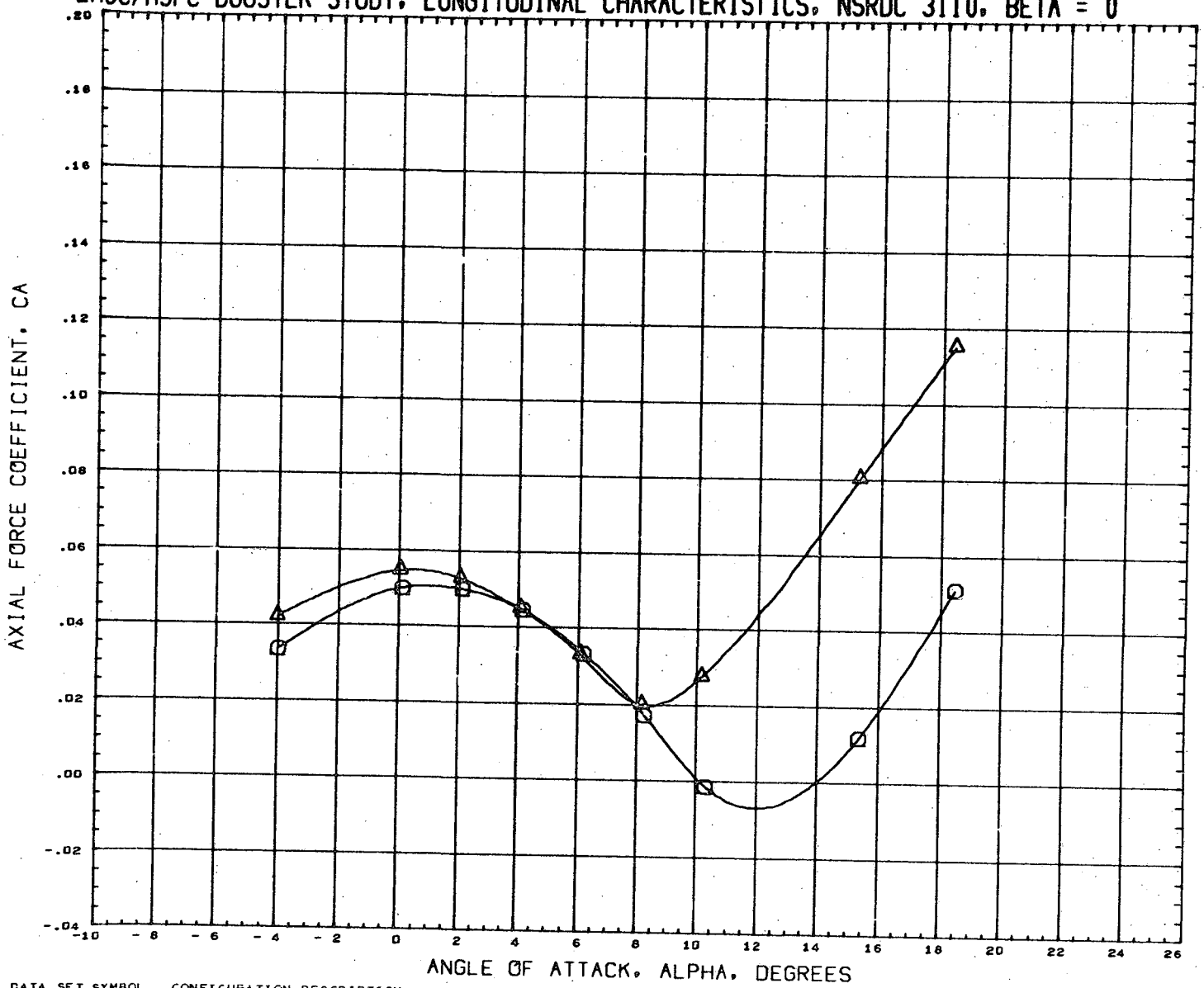



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2209) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 1.000 | 0.000 | 2.000 |
| (RN2241) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 1.000 | 3.000 | 2.000 |

MACH 0.383

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

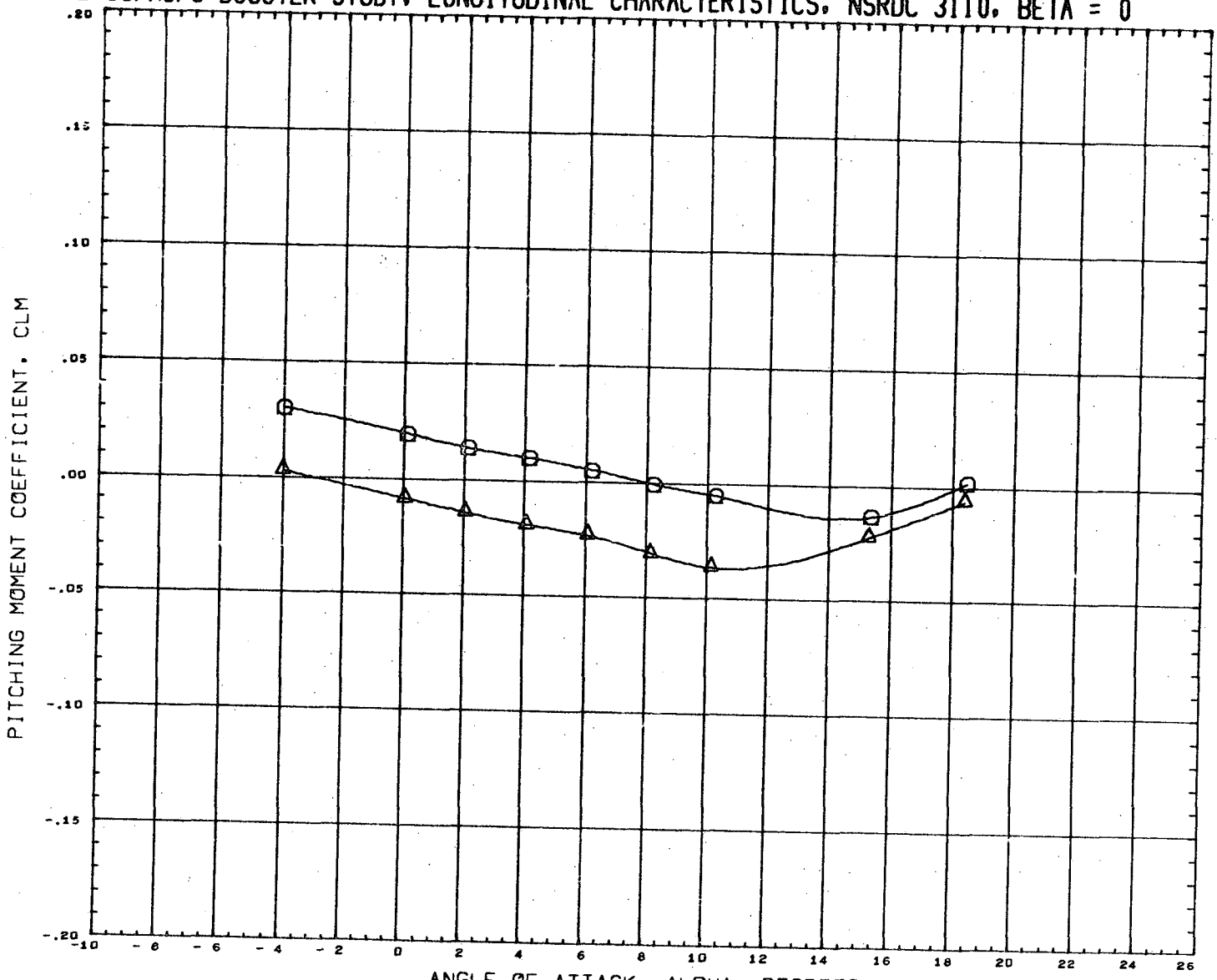



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2209) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 1.000 | 0.000 | 2.000 |
| (RN2241) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 1.000 | 3.000 | 2.000 |

MACH 0.383

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

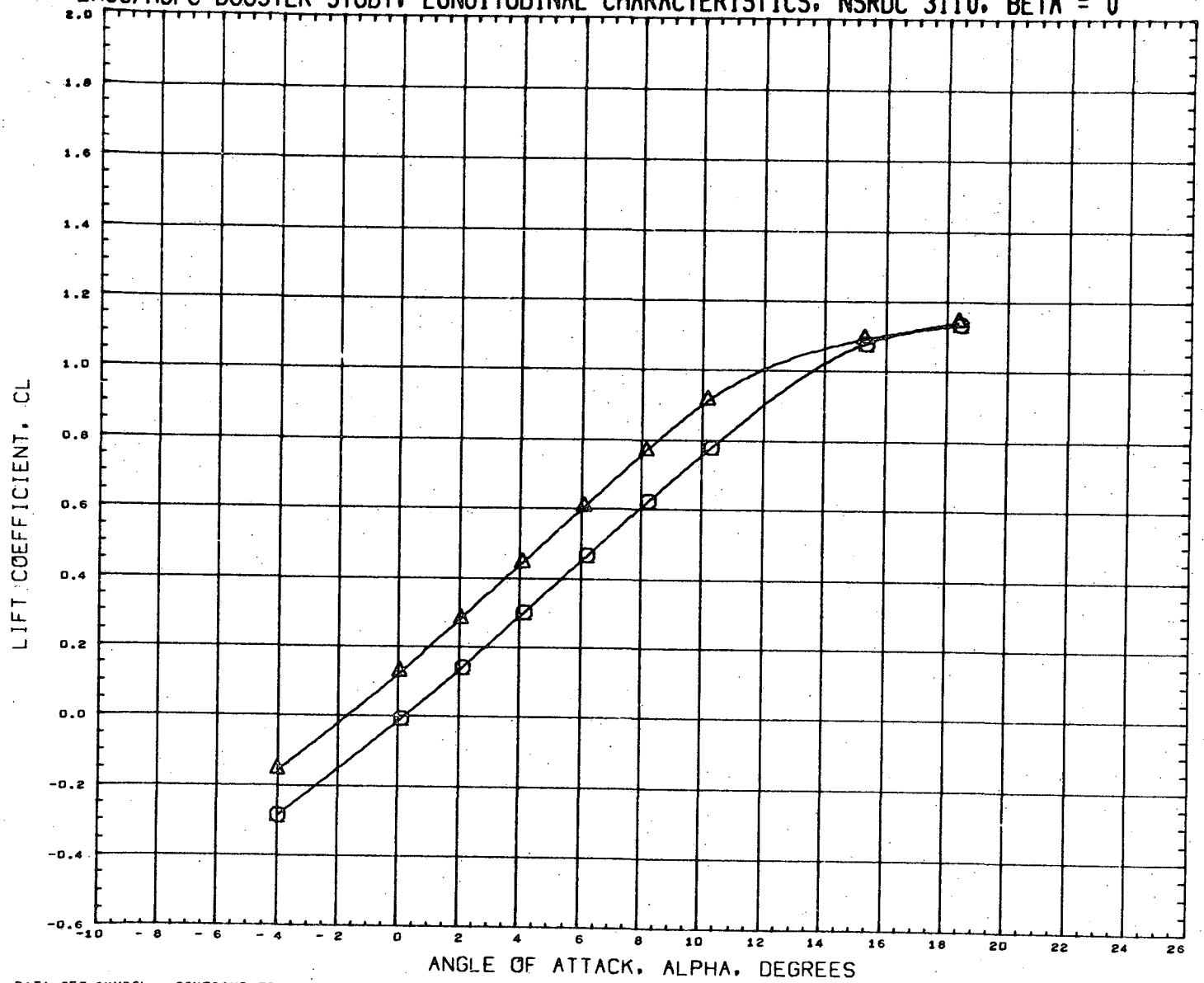



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDFOS | INCIDW | WNGFOS |
|---|---|---|---|---|---|---|
| (RN2209) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 1.000 | 0.000 | 2.000 |
| (RN2241) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 1.000 | 3.000 | 2.000 |

MACH 0.383

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0



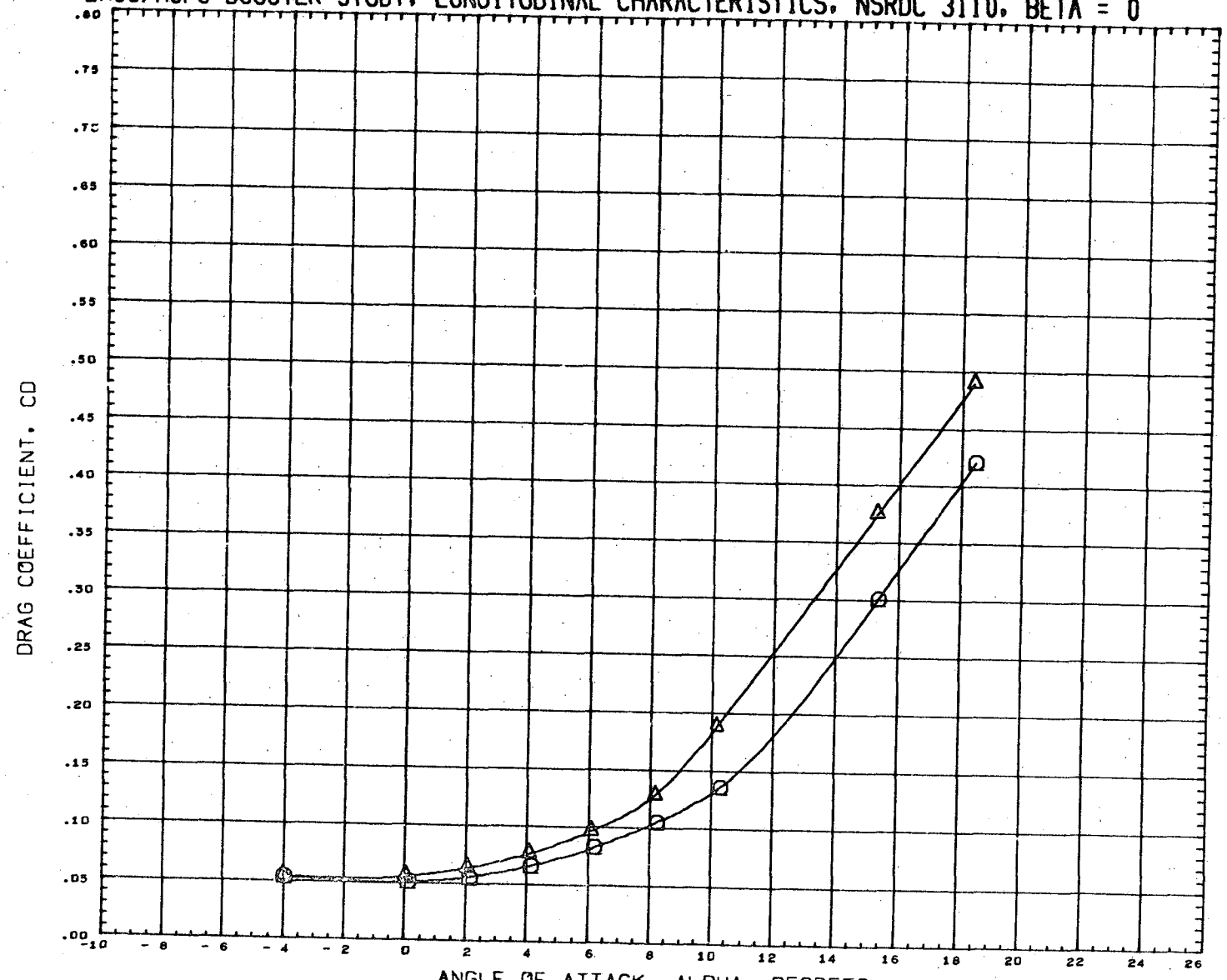

| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2209) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 1.000 | 0.000 | 2.000 |
| (RN2241) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 1.000 | 3.000 | 2.000 |

MACH 0.383

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

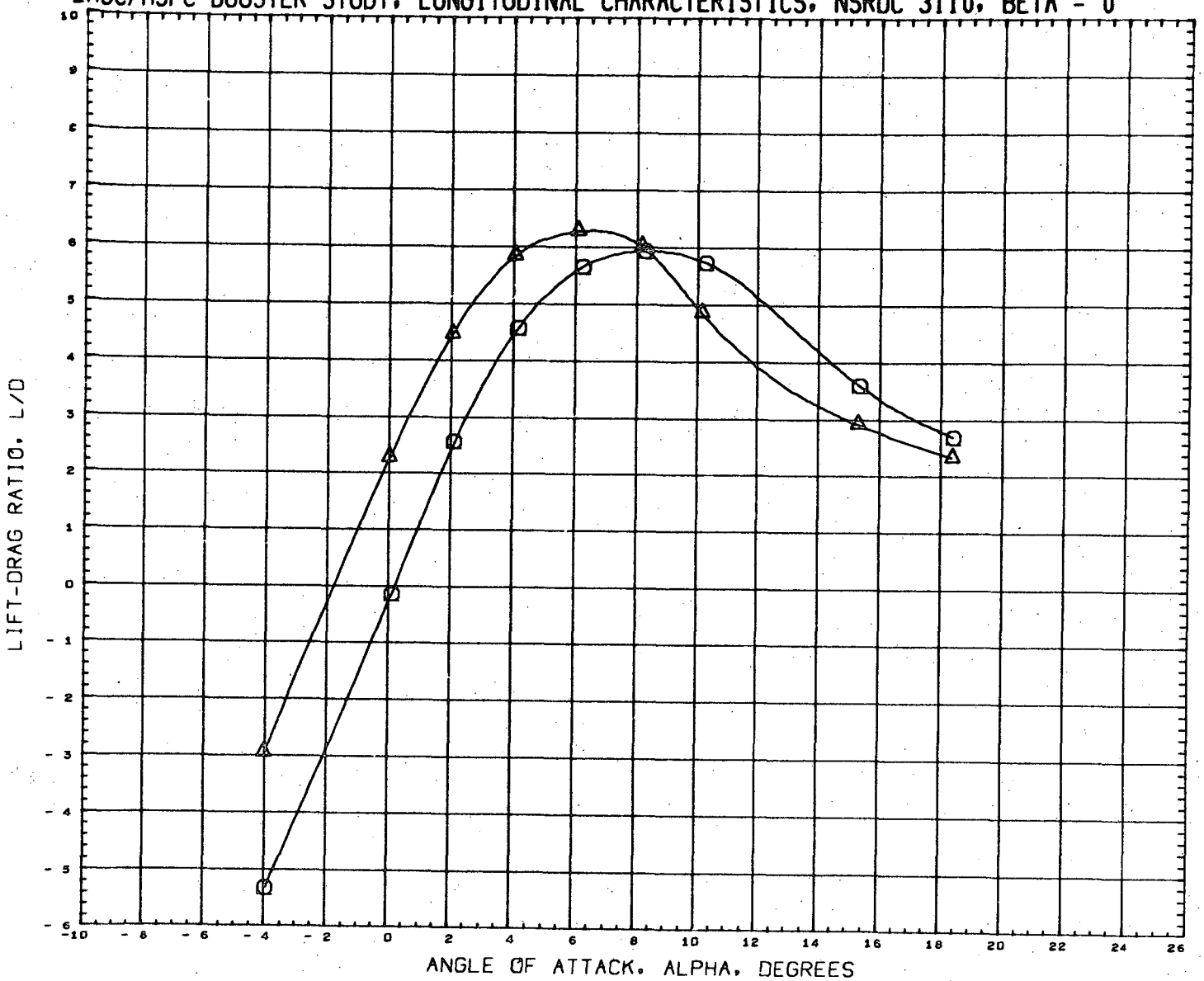



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDFOS | INCIDW | WNGFOS |
|---|---|---|---|---|---|
| (RN2209) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 1.000 | 0.000 | 2.000 |
| (RN2241) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 1.000 | 3.000 | 2.000 |

MACH 0.383

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

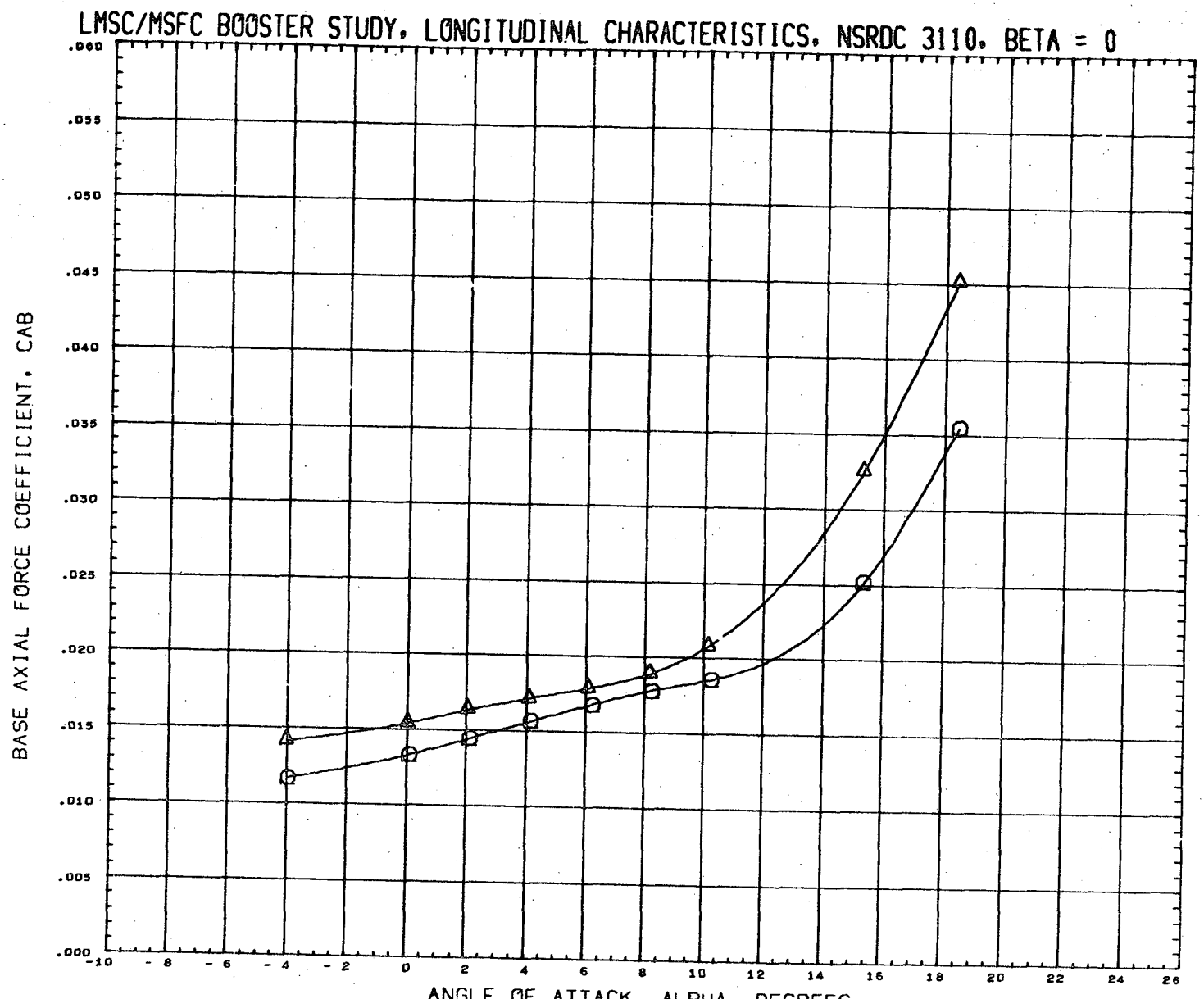
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2209) ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 1.000 | 0.000 | 2.000 |
| (RN2241) △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 1.000 | 3.000 | 2.000 |

MACH 0.383

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

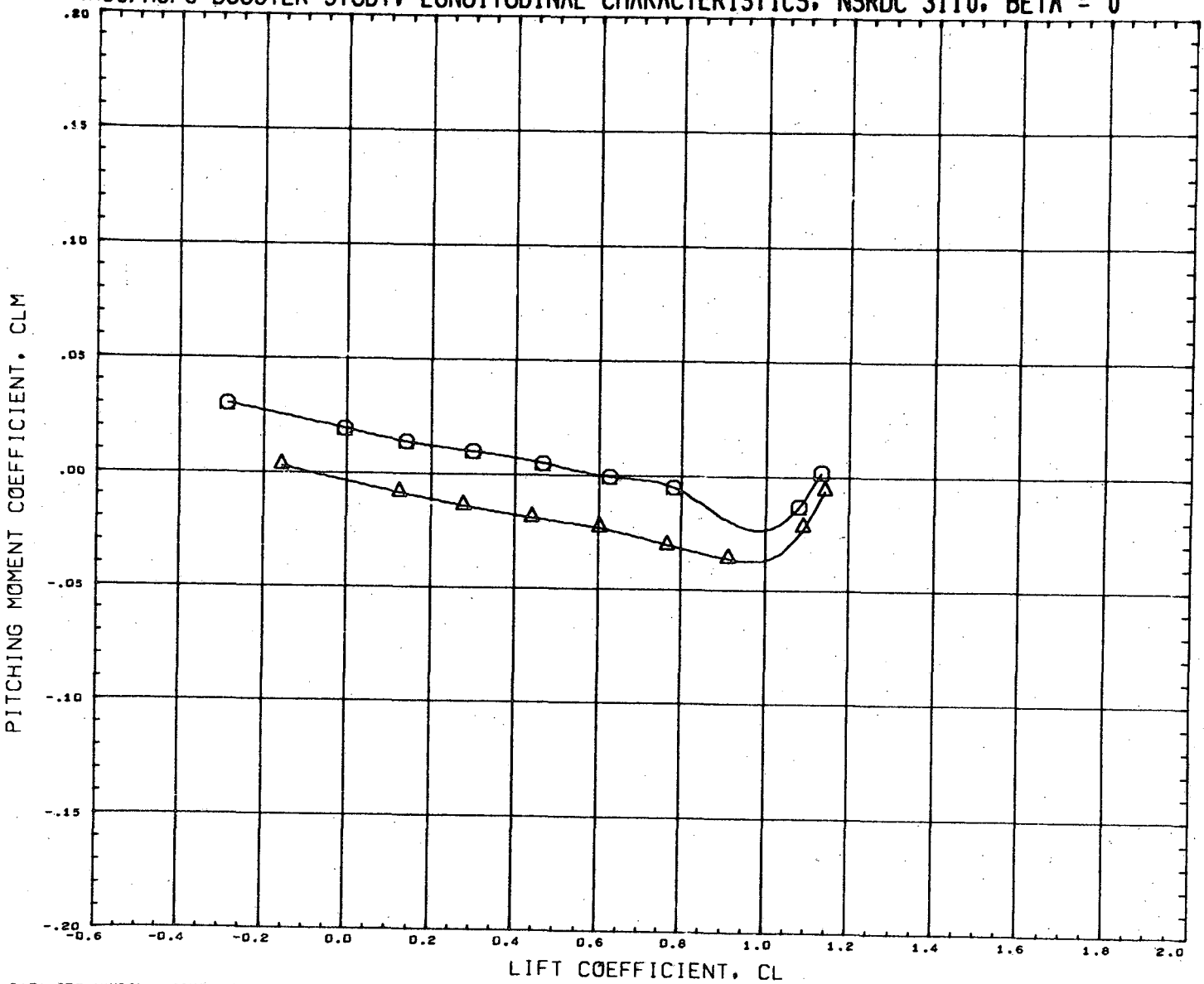



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2209) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 1.000 | 0.000 | 2.000 |
| (RN2241) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 1.000 | 3.000 | 2.000 |

MACH 0.383

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

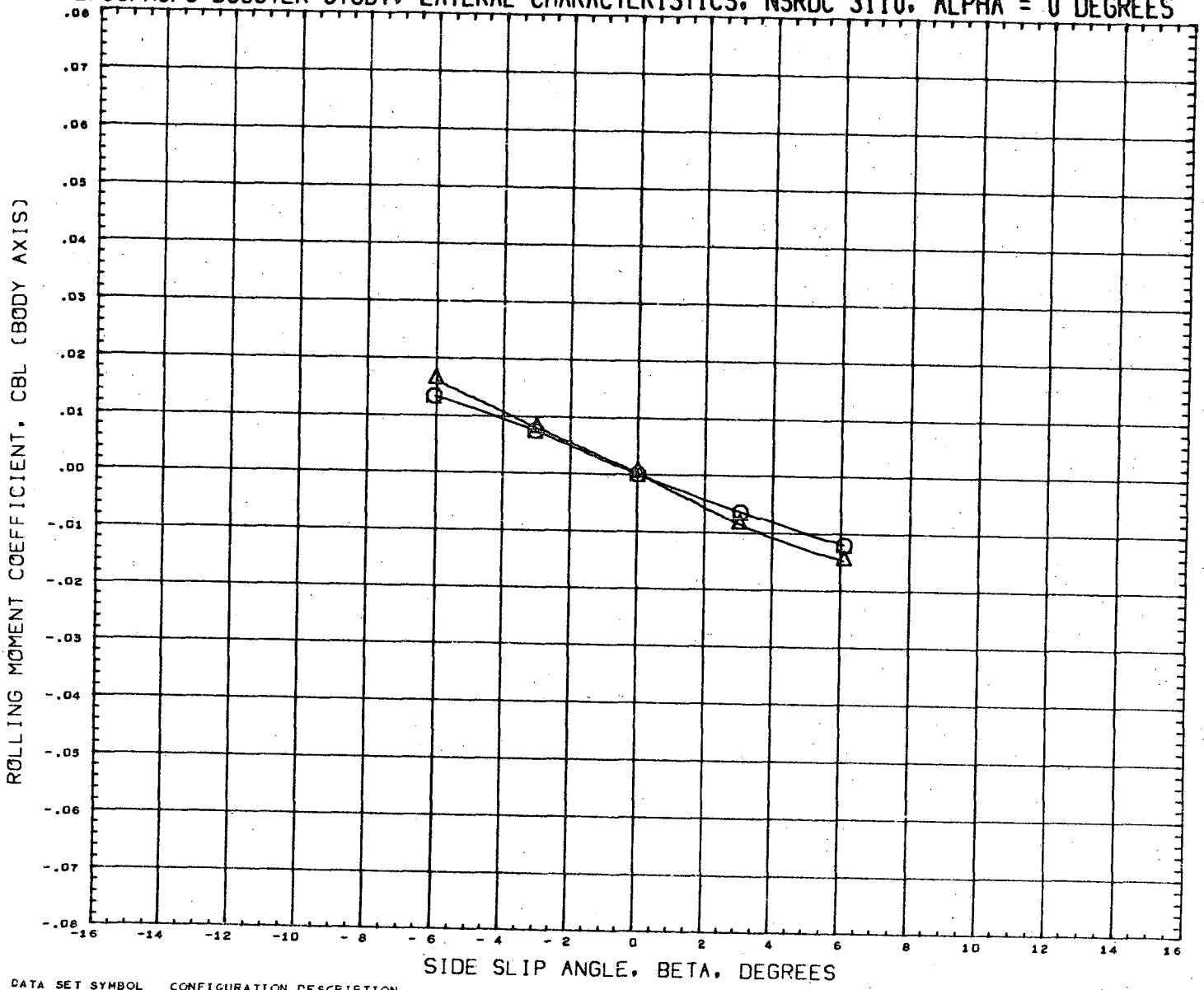



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2209) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 1.000 | 0.000 | 2.000 |
| (RN2241) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 1.000 | 3.000 | 2.000 |

MACH 0.383

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

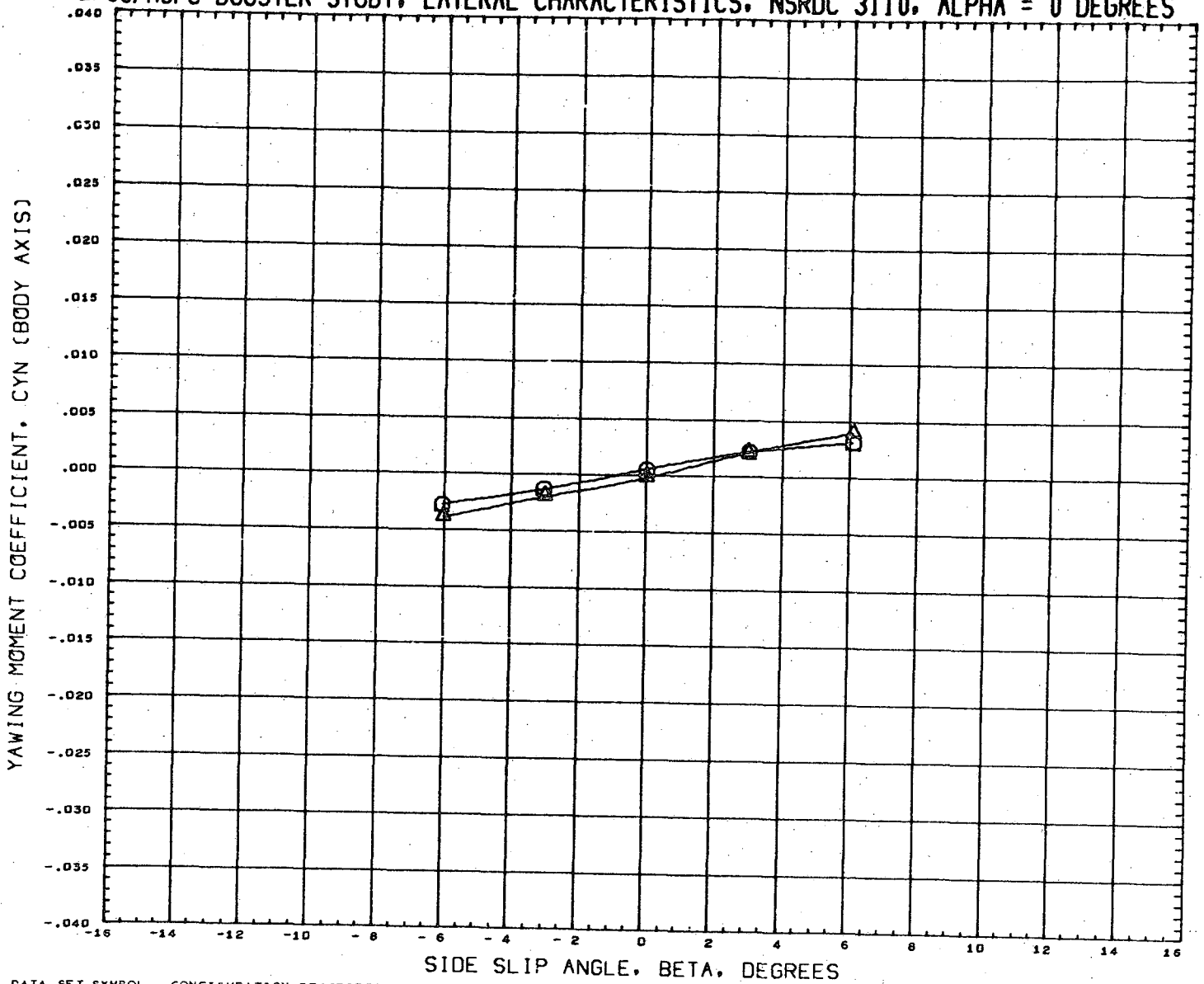



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2210) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 1.000 | 0.000 | 2.000 |
| (RN2242) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 1.000 | 3.000 | 2.000 |

MACH 0.383

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

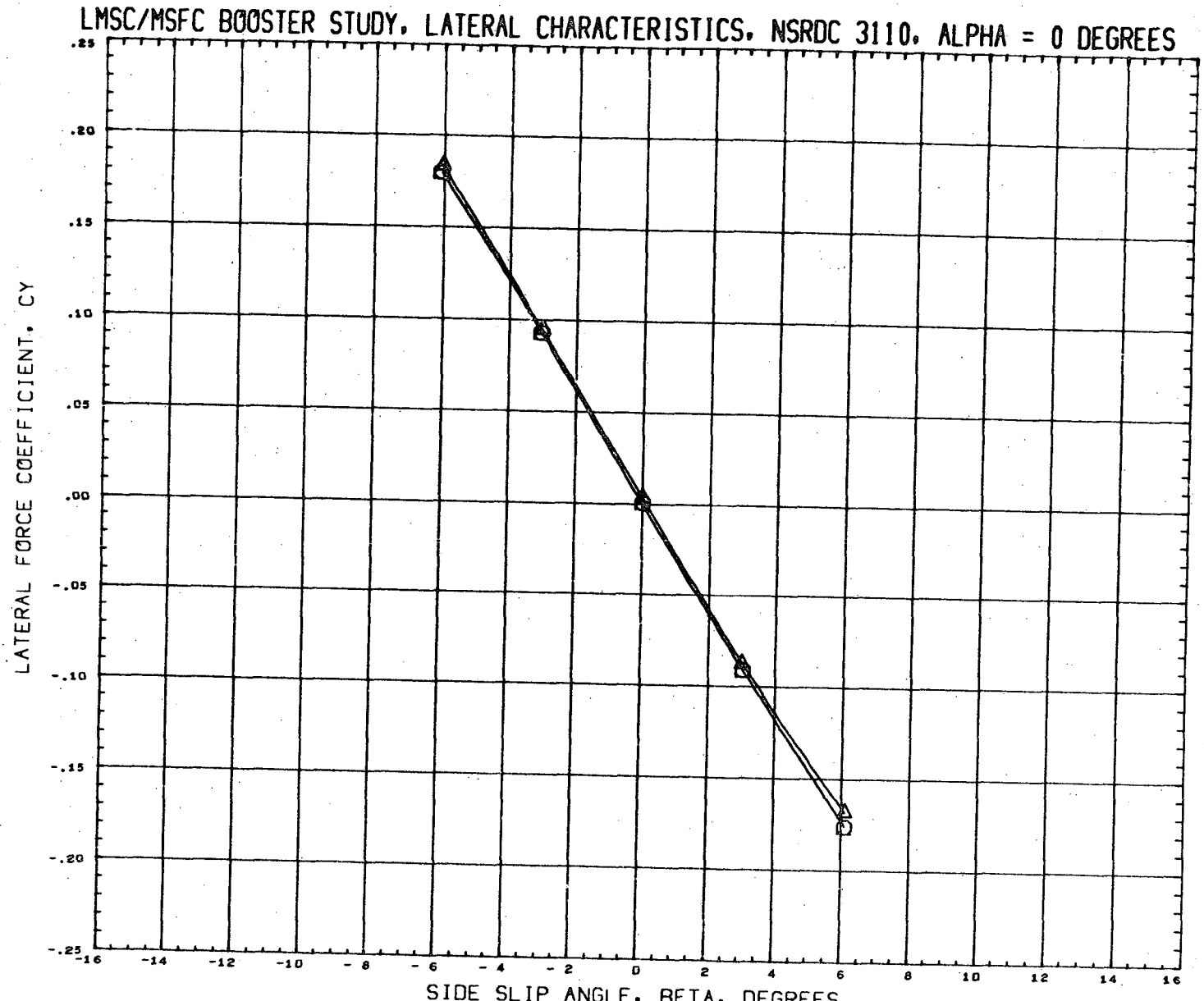
# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES




| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2210) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 1.000 | 0.000 | 2.000 |
| (RN2242) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 1.000 | 3.000 | 2.000 |

MACH 0.383

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

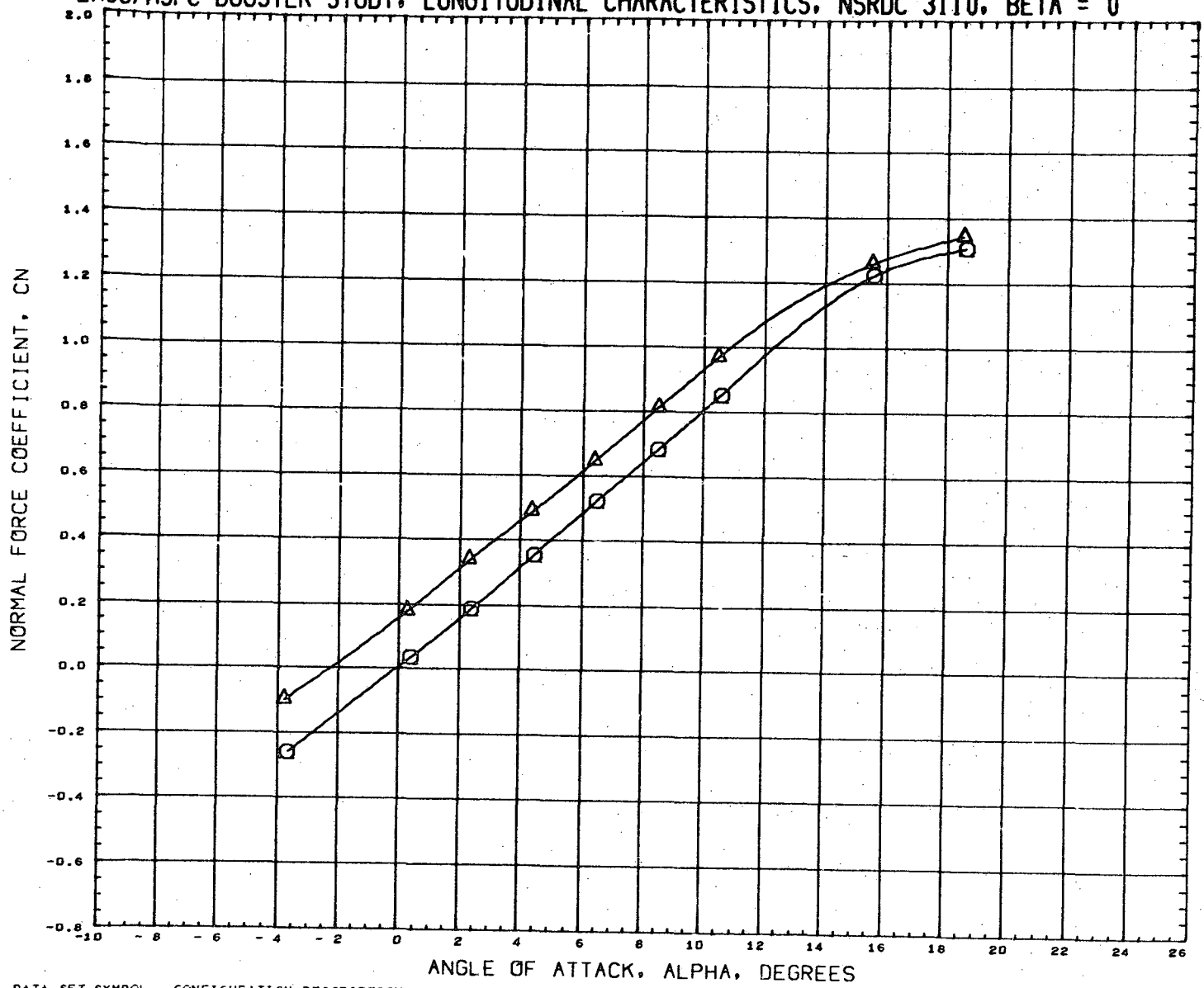



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2210) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 1.000 | 0.000 | 2.000 |
| (RN2242) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 1.000 | 3.000 | 2.000 |

MACH 0.383

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

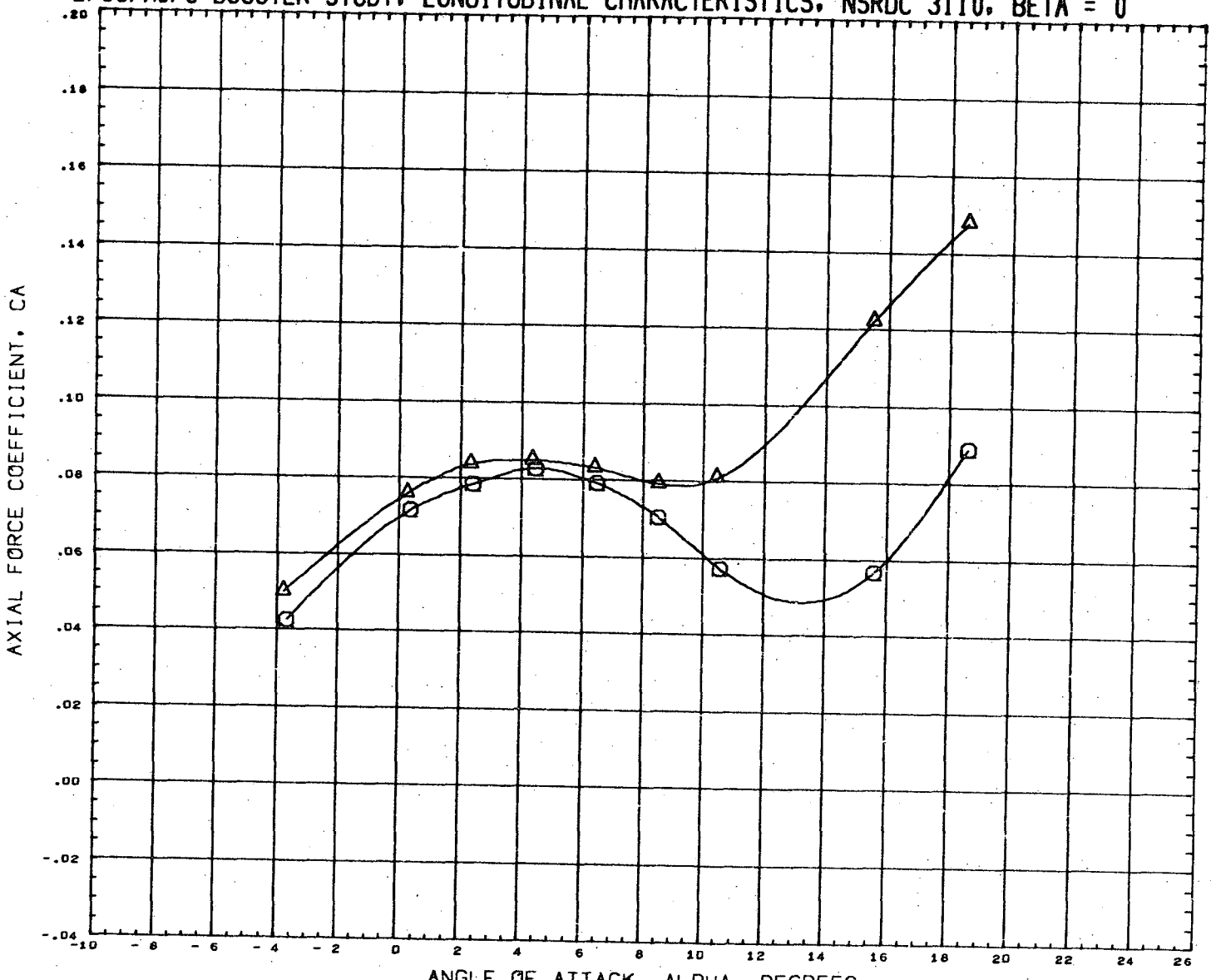



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2213) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 1.000 | 0.000 | 2.000 |
| (RN2245) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 1.000 | 3.000 | 2.000 |

MACH 0.382

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

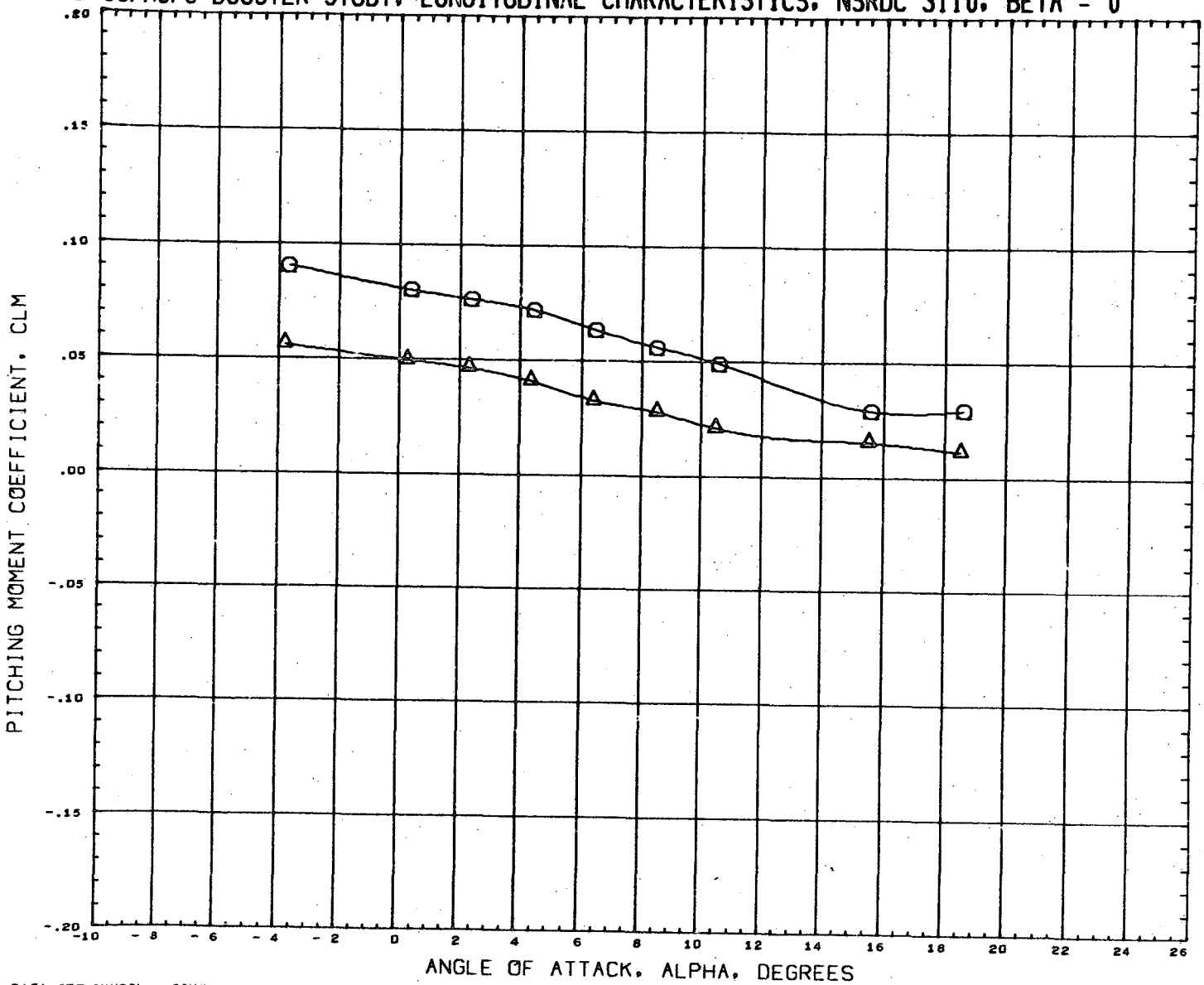



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2213) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 1.000 | 0.000 | 2.000 |
| (RN2245) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 1.000 | 3.000 | 2.000 |

MACH 0.382

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

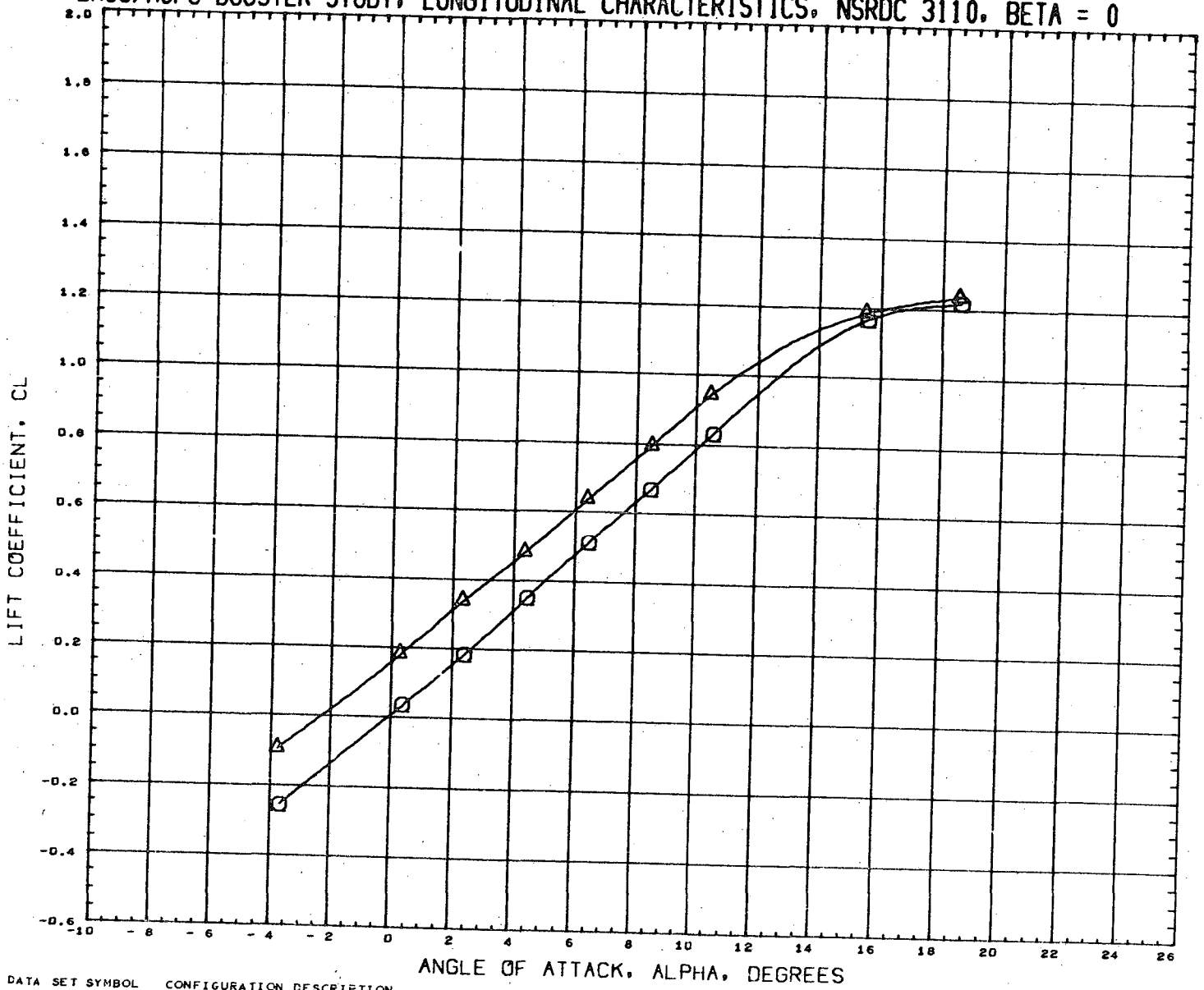



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2213) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 1.000 | 0.000 | 2.000 |
| (RN2245) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 1.000 | 3.000 | 2.000 |

MACH 0.382

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

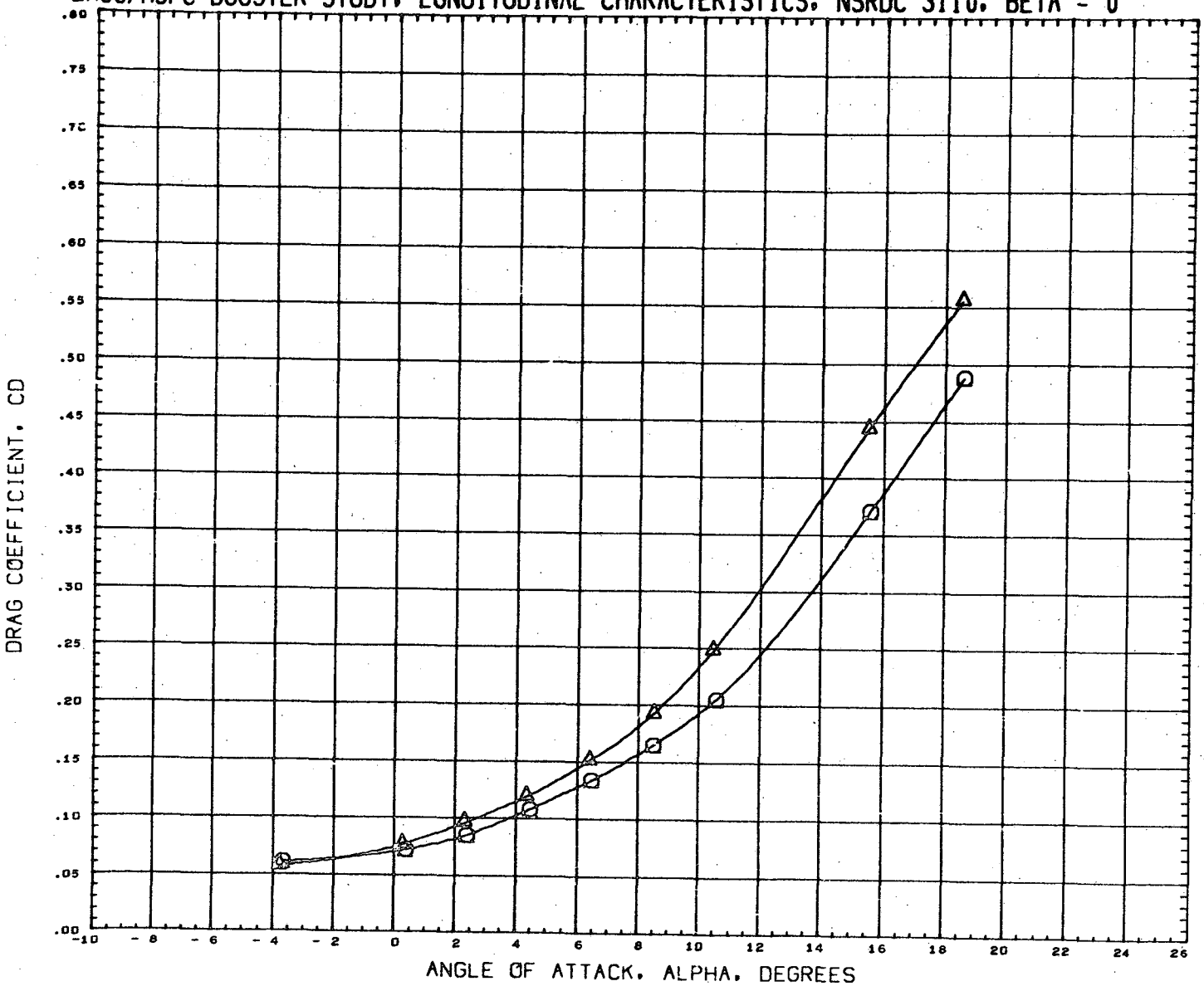



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2213) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 1.000 | 0.000 | 2.000 |
| (RN2245) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 1.000 | 3.000 | 2.000 |

MACH 0.382

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

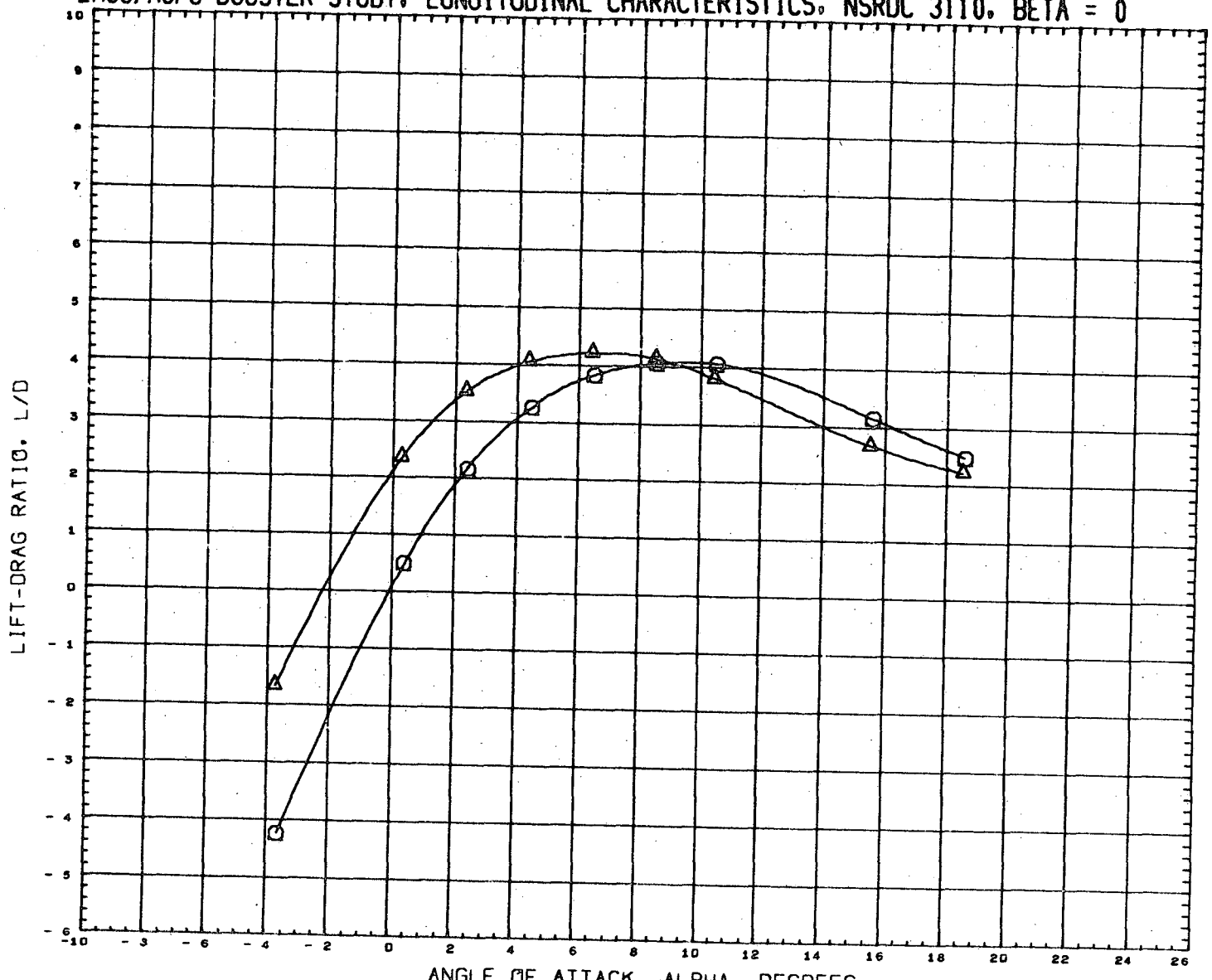



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2213) ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 1.000 | 0.000 | 2.000 |
| (RN2245) △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 1.000 | 3.000 | 2.000 |

MACH 0.382

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY. LONGITUDINAL CHARACTERISTICS. NSRDC 3110. BETA = 0

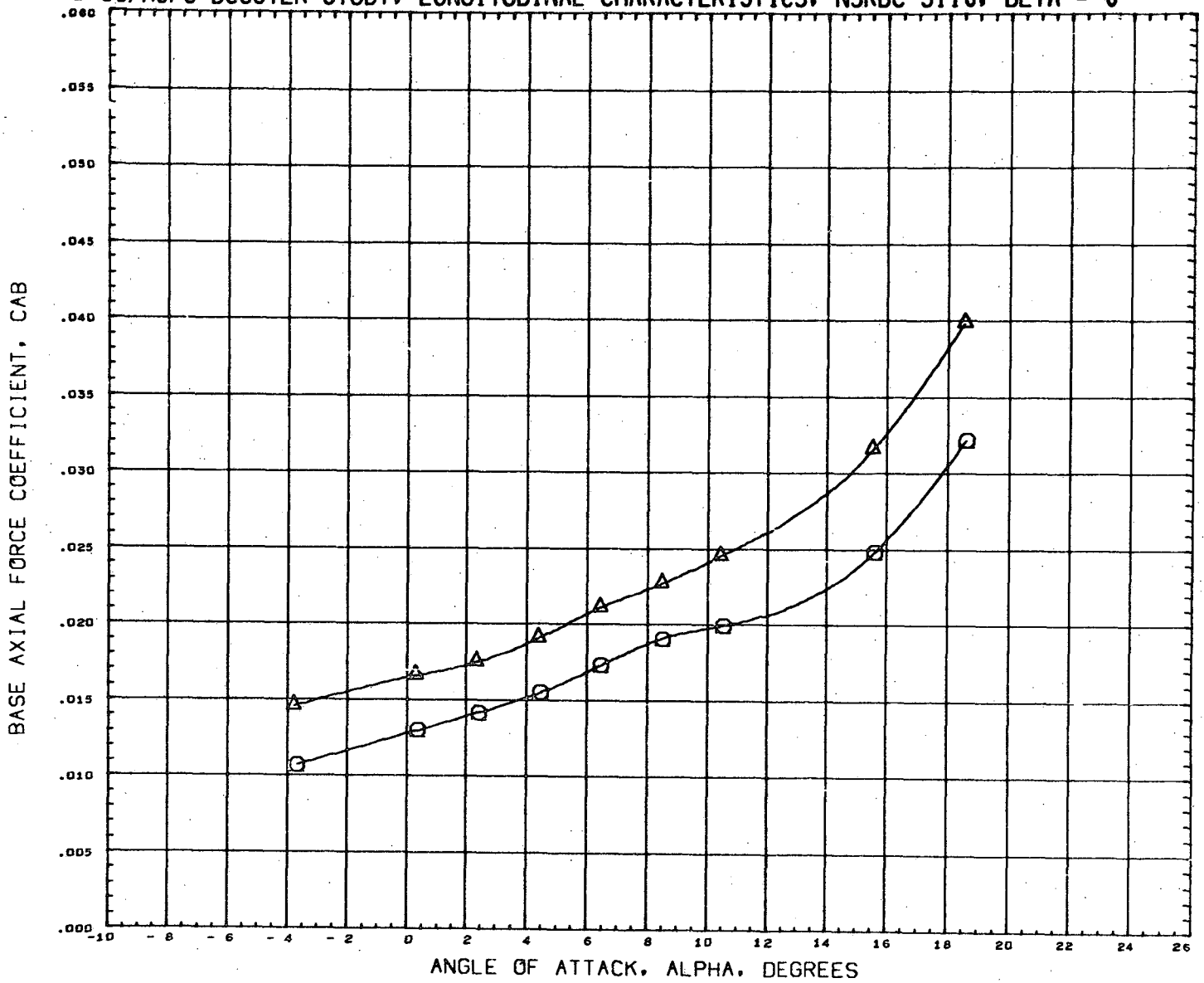



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2213) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 1.000 | 0.000 | 2.000 |
| (RN2245) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 1.000 | 3.000 | 2.000 |

MACH 0.382

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

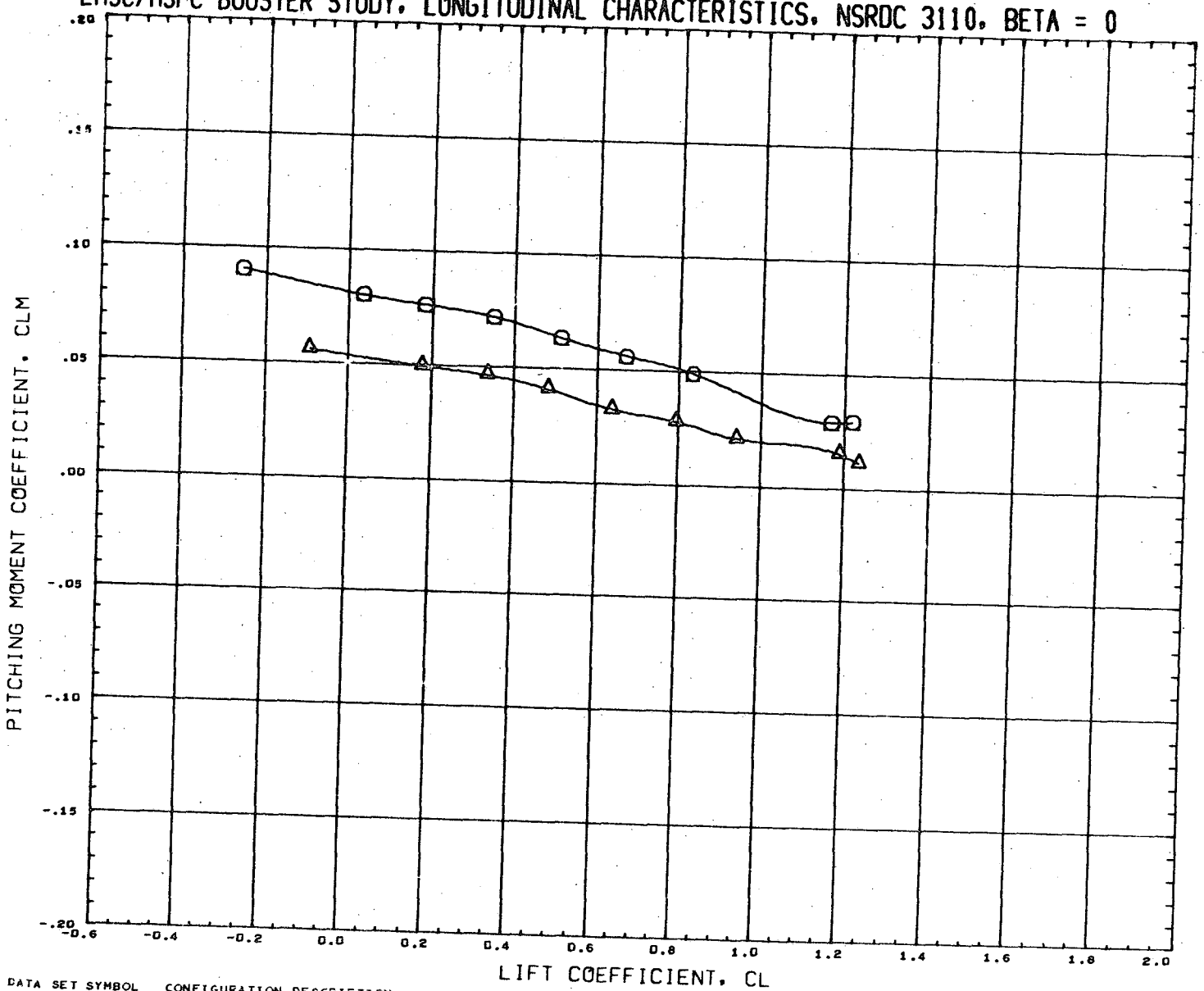
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2213) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 1.000 | 0.000 | 2.000 |
| (RN2245) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 1.000 | 3.000 | 2.000 |

MACH 0.382

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

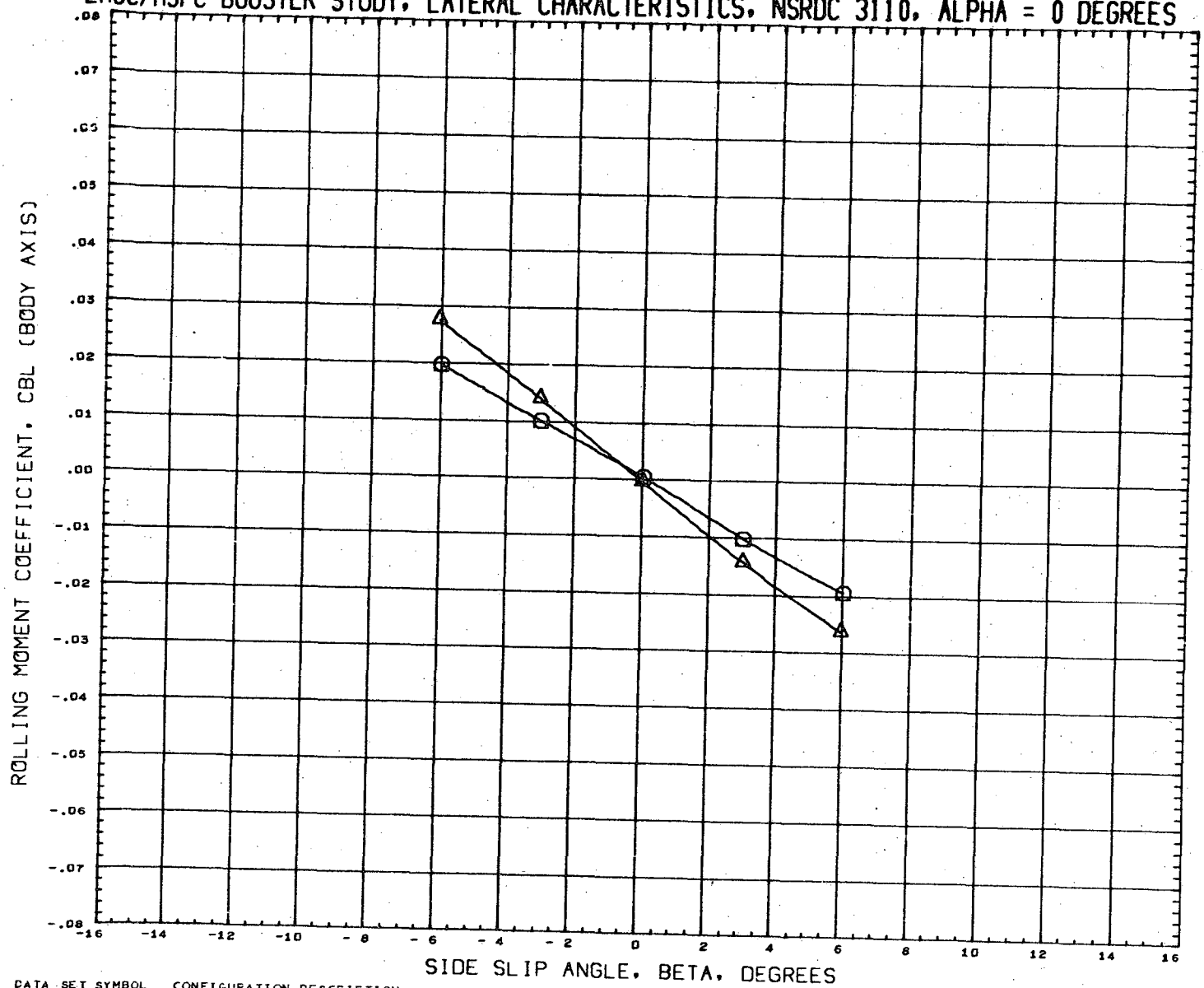



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2213) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 1.000 | 0.000 | 2.000 |
| (RN2245) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 1.000 | 3.000 | 2.000 |

MACH 0.382

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

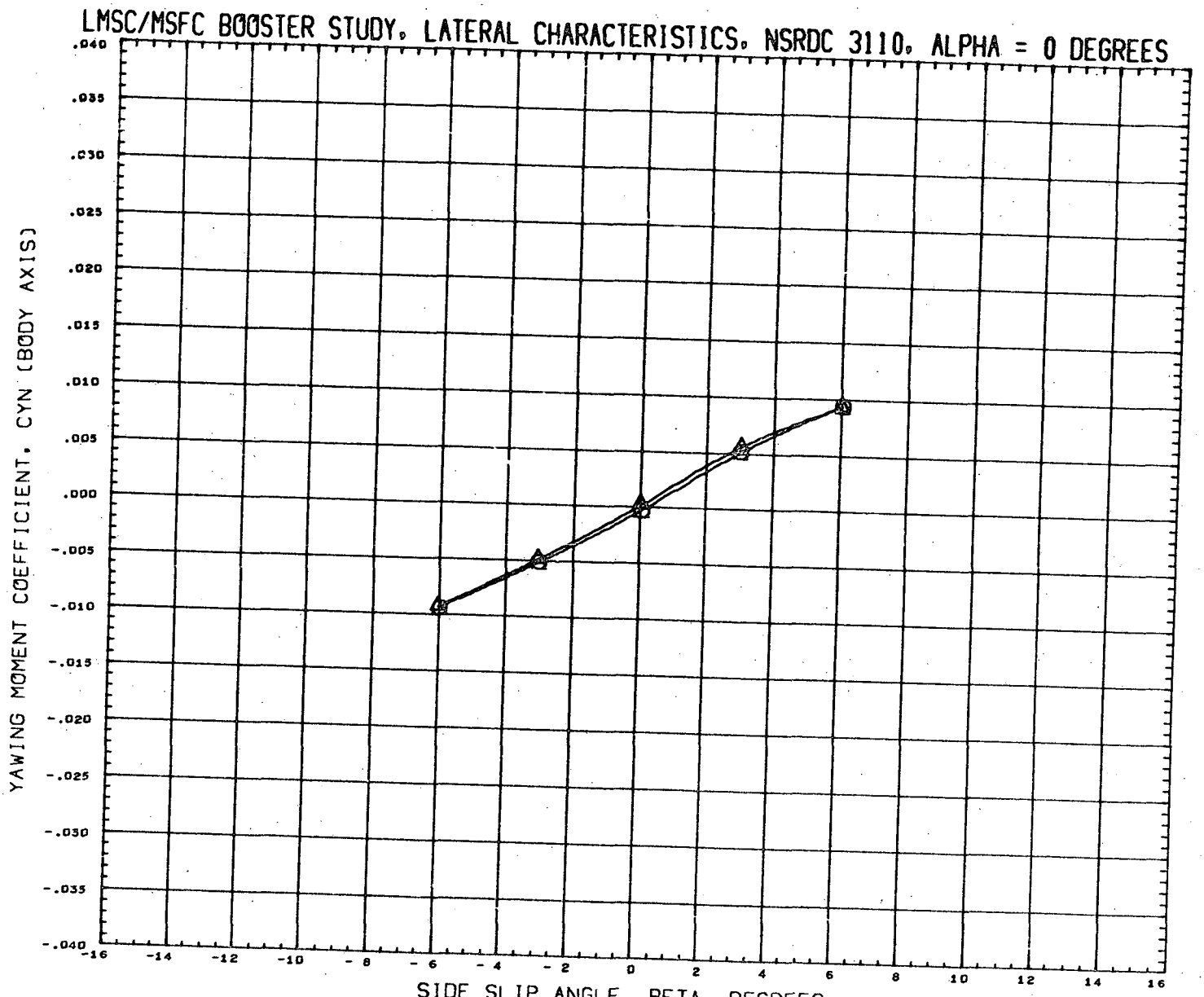
# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES




| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2214) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 1.000 | 0.000 | 2.000 |
| (RN2246) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 1.000 | 3.000 | 2.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

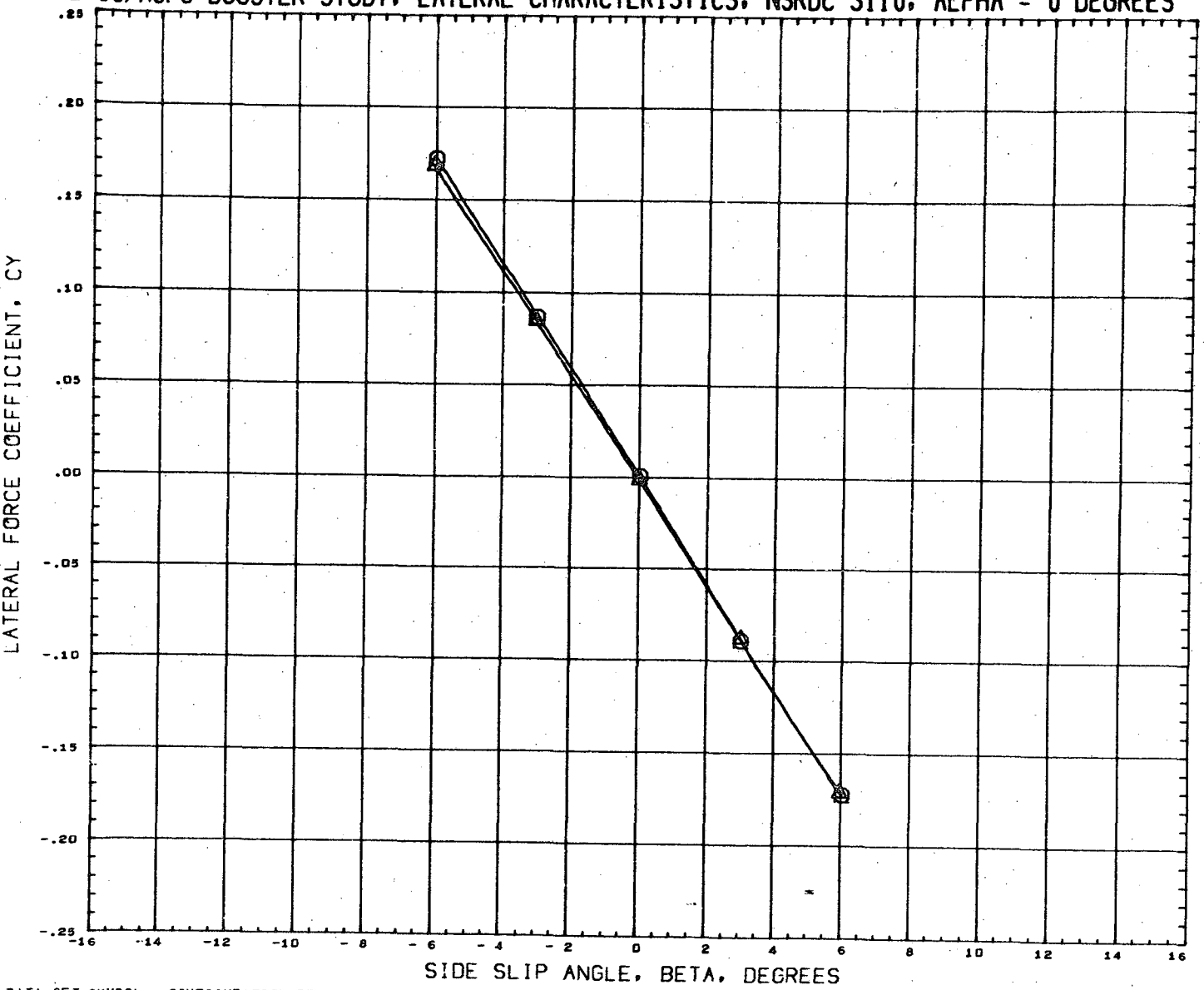



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2214) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 1.000 | 0.000 | 2.000 |
| (RN2246) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 1.000 | 3.000 | 2.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

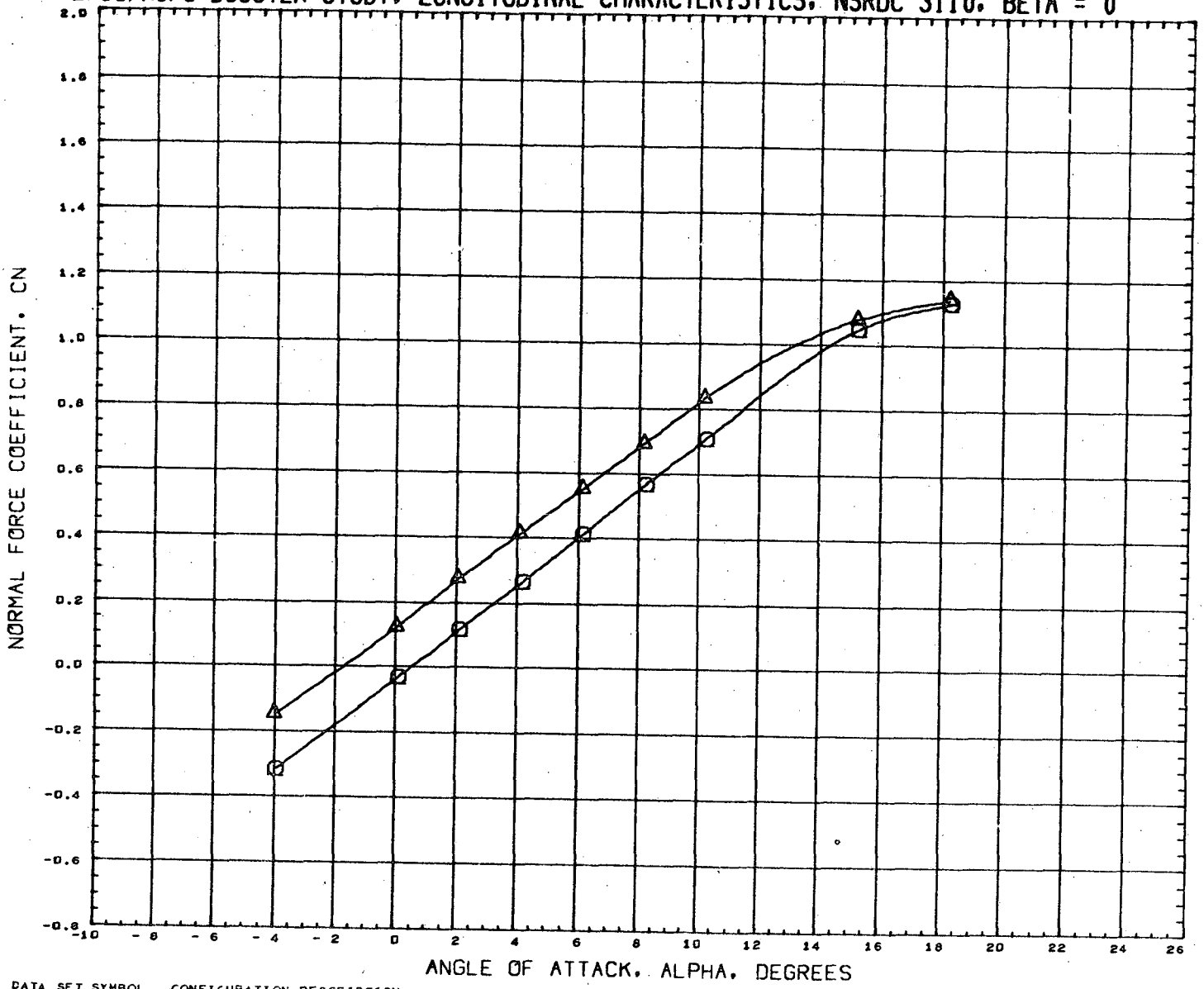



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2214) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 1.000 | 0.000 | 2.000 |
| (RN2246) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 1.000 | 3.000 | 2.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

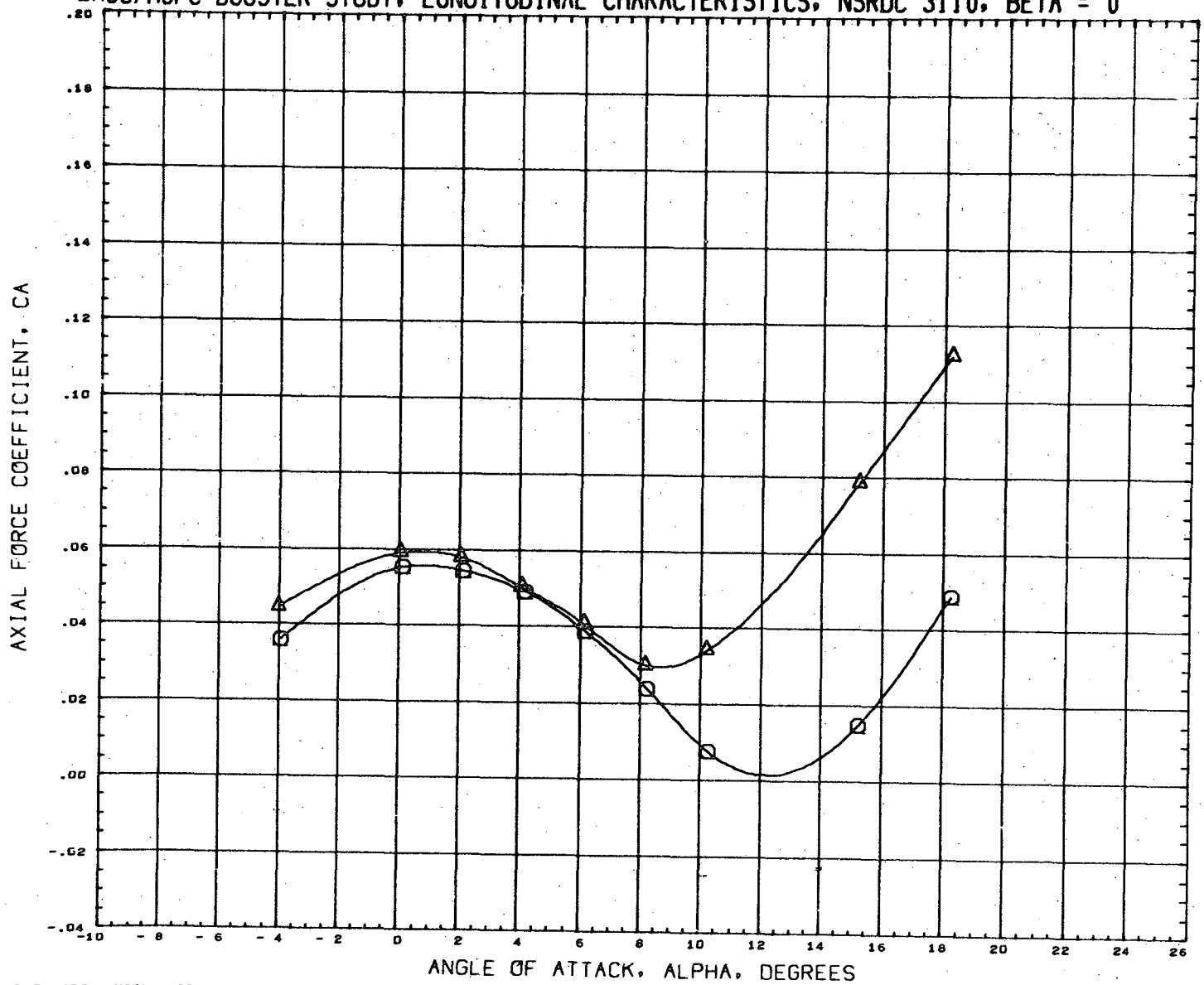



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2217) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 2.000 | 0.000 | 2.000 |
| (RN2249) | NSRDC 3110 MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 2.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

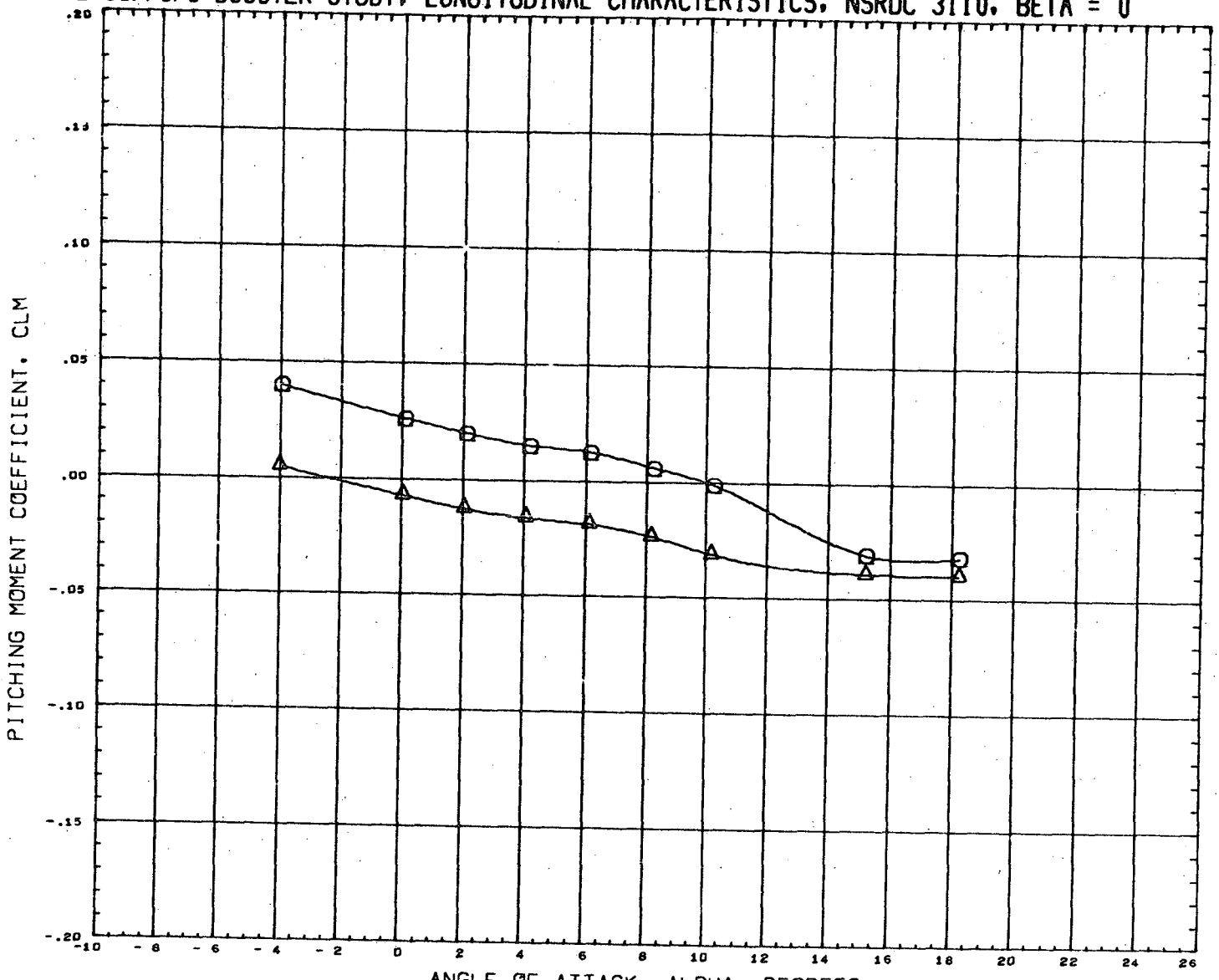



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2217) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 2.000 | 0.000 | 2.000 |
| (RN2249) | △ | NSRDC 3110 MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 2.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

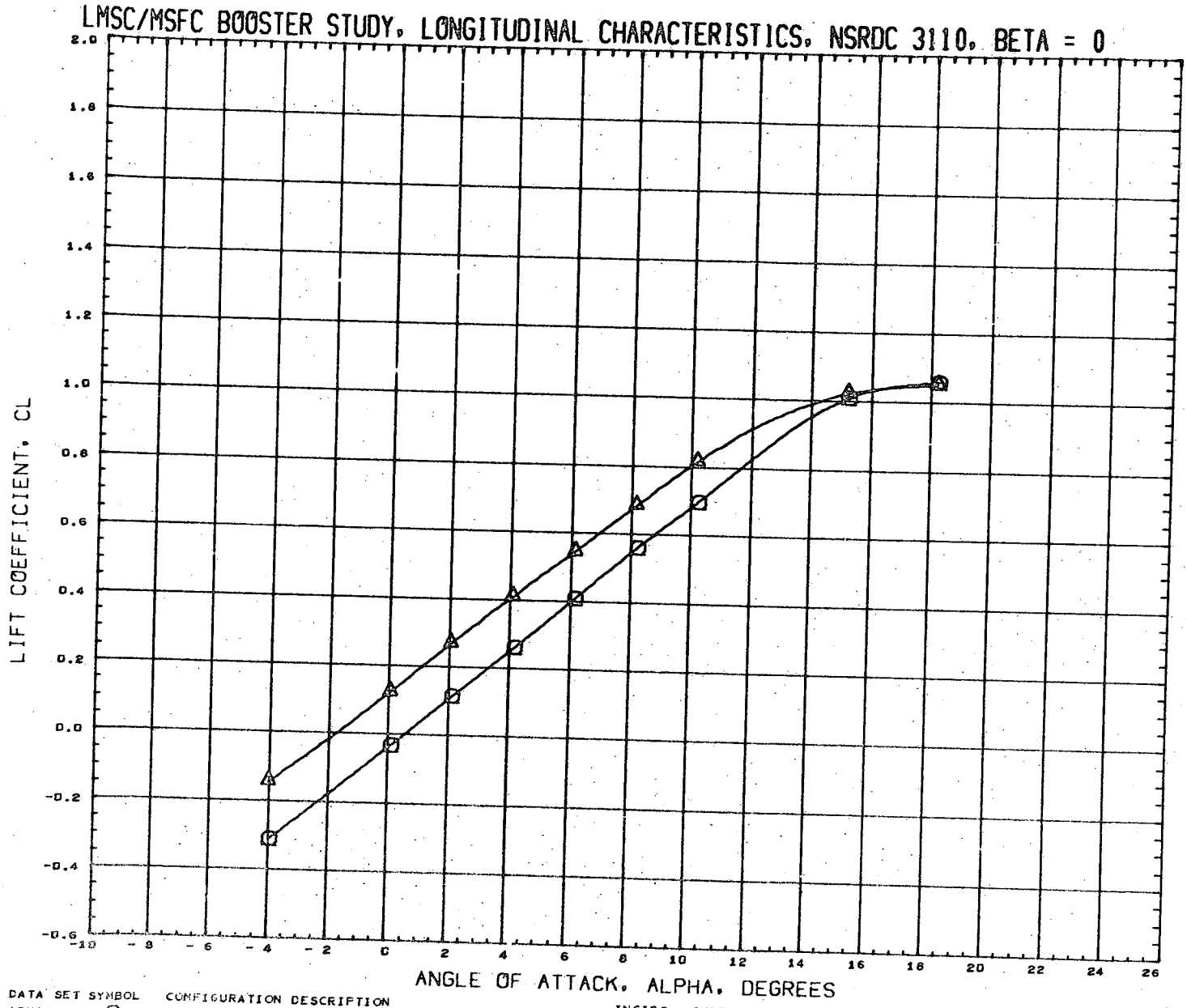
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDFOS | INCIDW | WNGFOS |
|---|---|---|---|---|---|---|
| (RN2217) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 2.000 | 0.000 | 2.000 |
| (RN2249) | △ | NSRDC 3110 MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 2.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |



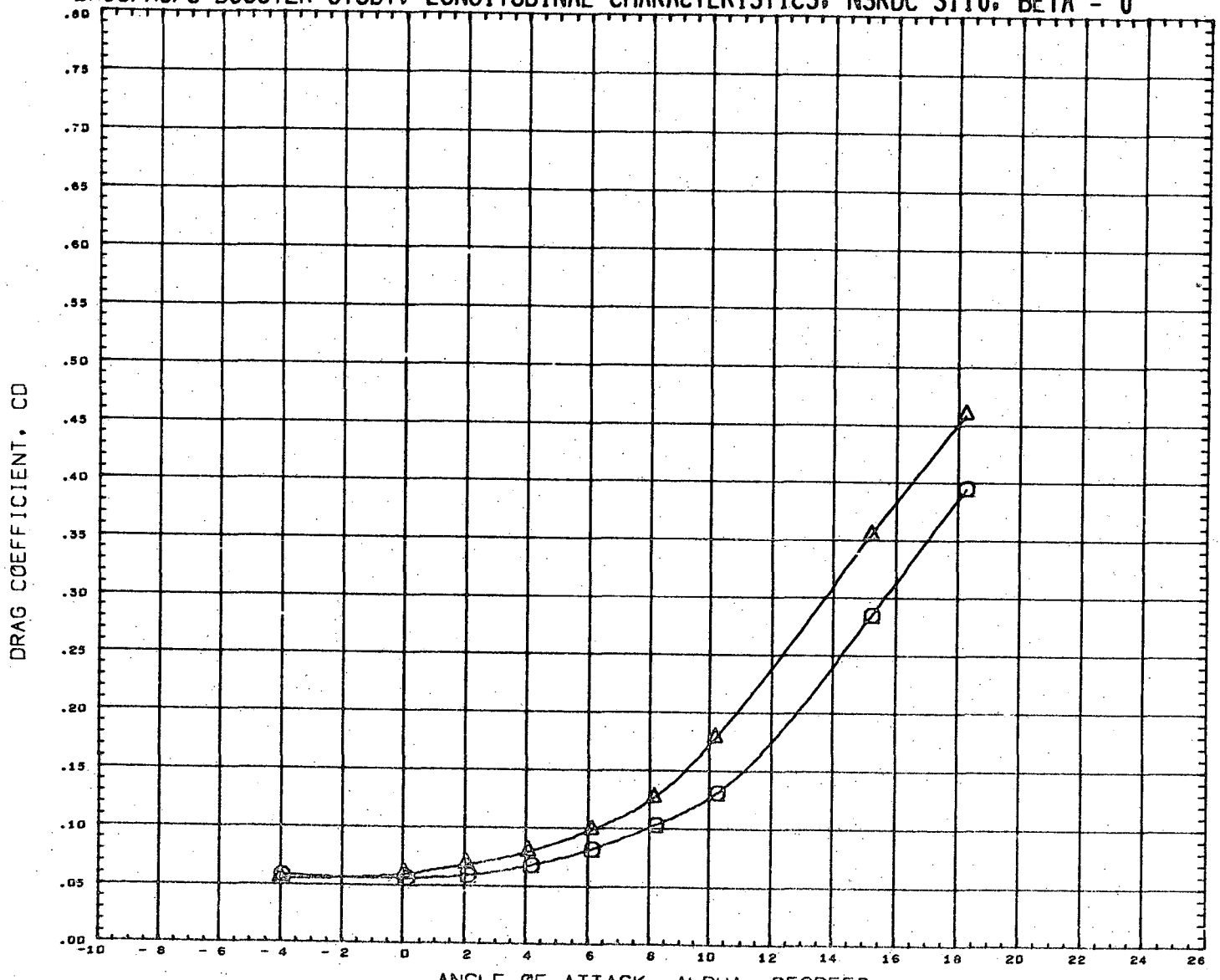

| DATA SET SYMBOL | CONFIGURATION DESCRIPTION |
|---|---|
| (RN2217) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 |
| (RN2249) | NSRDC 3110 MSFC/LMSC BOOSTER B1C2F1W1V2D1 |

| INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|
| 3.000 | 2.000 | 0.000 | 2.000 |
| 3.000 | 2.000 | 3.000 | 2.000 |

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

MACH 0.381

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

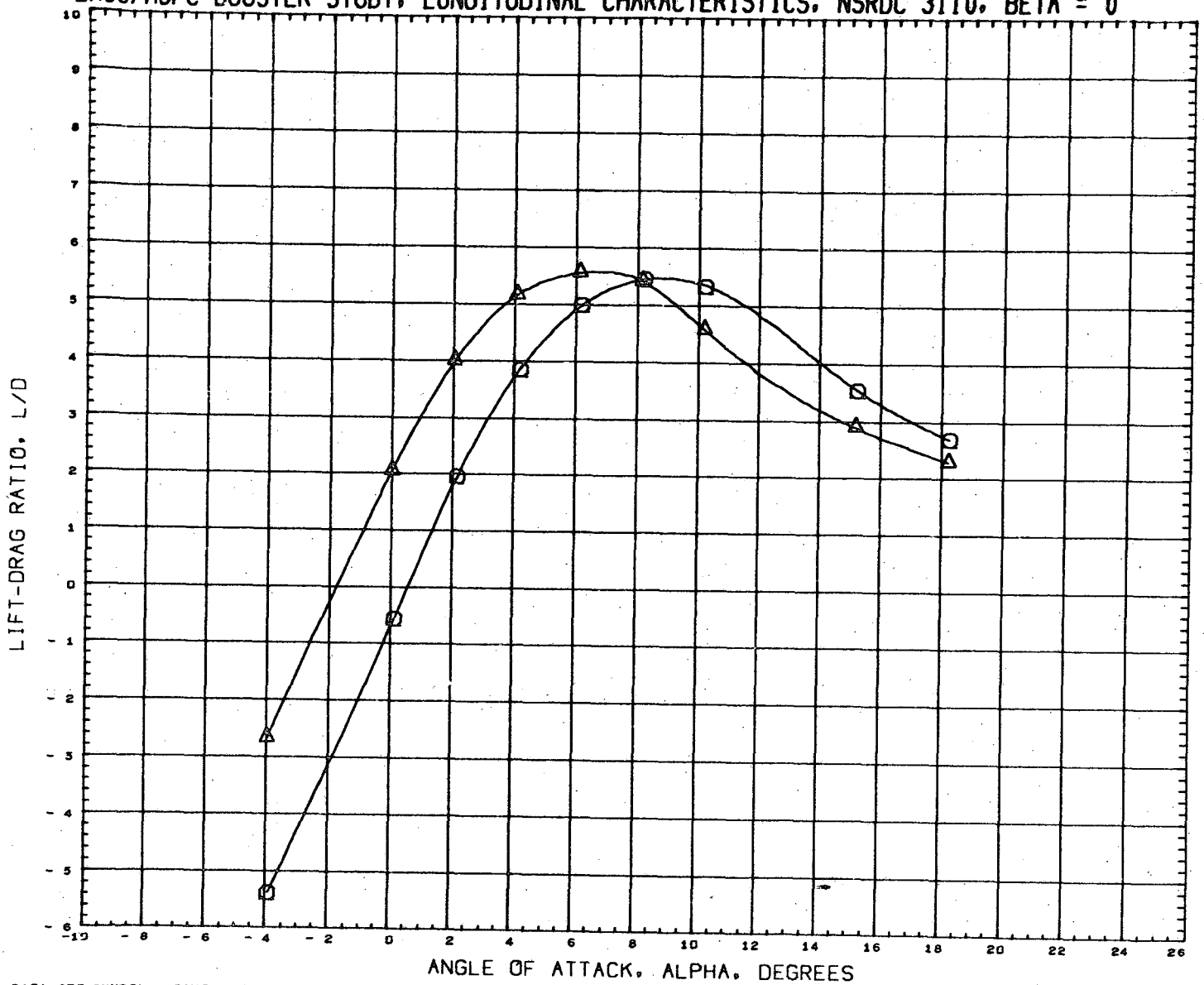



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2217) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 2.000 | 0.000 | 2.000 |
| (RN2249) | △ | NSRDC 3110 MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 2.000 | 3.000 | 2.000 |

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

MACH 0.381

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION |
|---|---|---|
| (RN2217) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 |
| (RN2249) | | NSRDC 3110 MSFC/LMSC BOOSTER B1C2F1W1V2D1 |

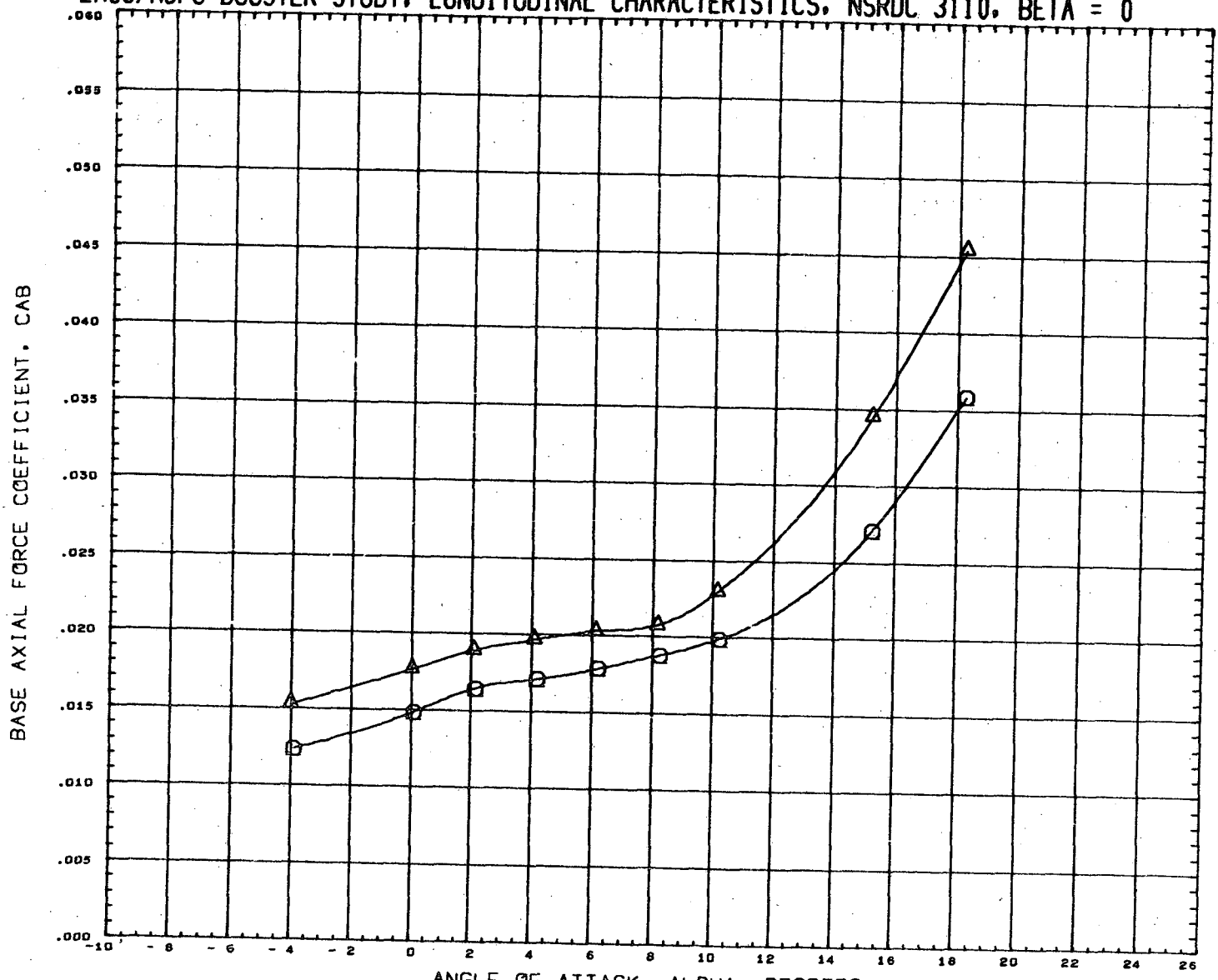
| INCIDC | CNDFOS | INCIDW | WNGFOS |
|---|---|---|---|
| 3.000 | 2.000 | 0.000 | 2.000 |
| 3.000 | 2.000 | 3.000 | 2.000 |

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

MACH 0.381

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

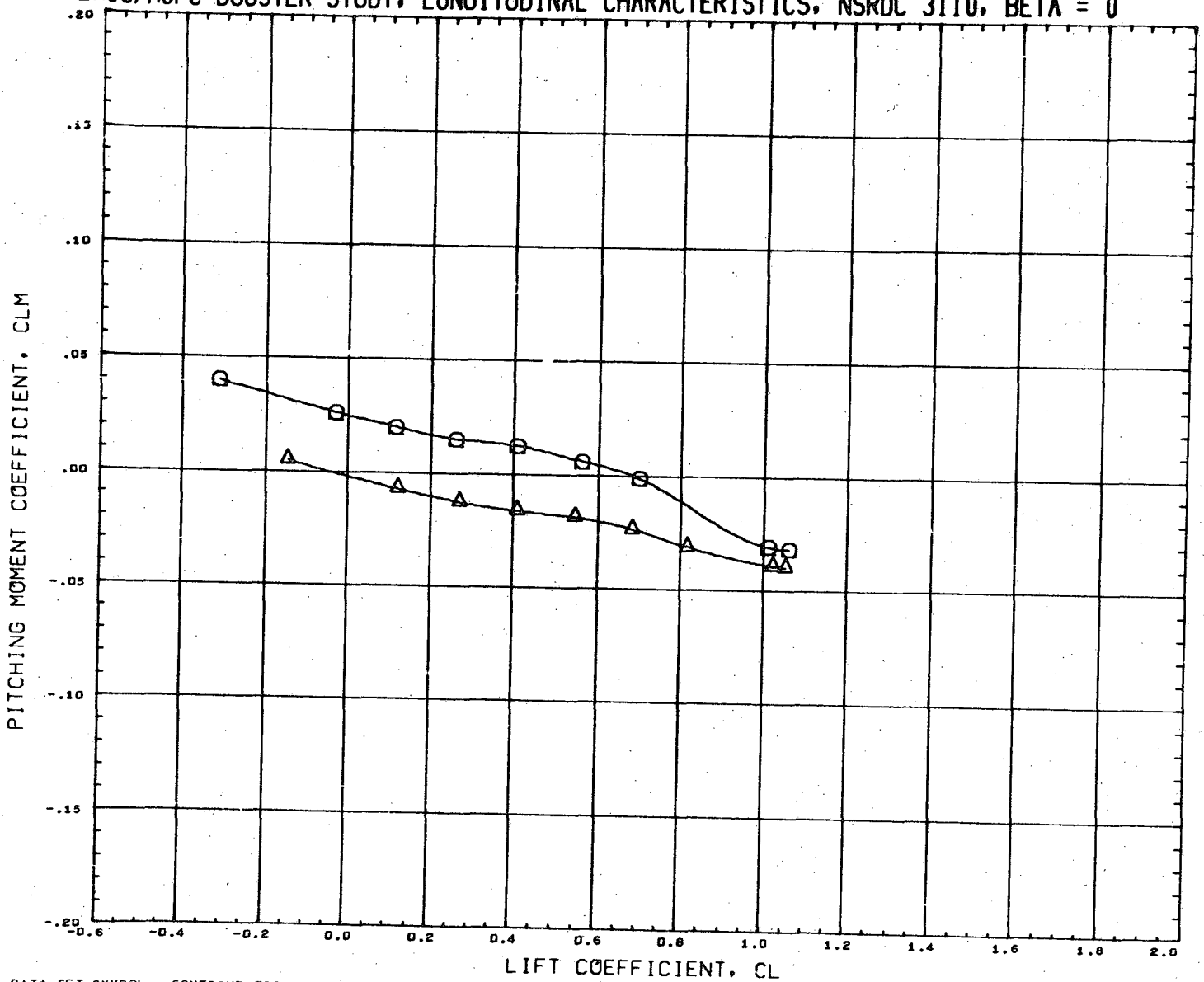



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDFOS | INCIDW | WNGFOS |
|---|---|---|---|---|---|---|
| (RN2217) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 2.000 | 0.000 | 2.000 |
| (RN2249) | △ | NSRDC 3110 MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 2.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

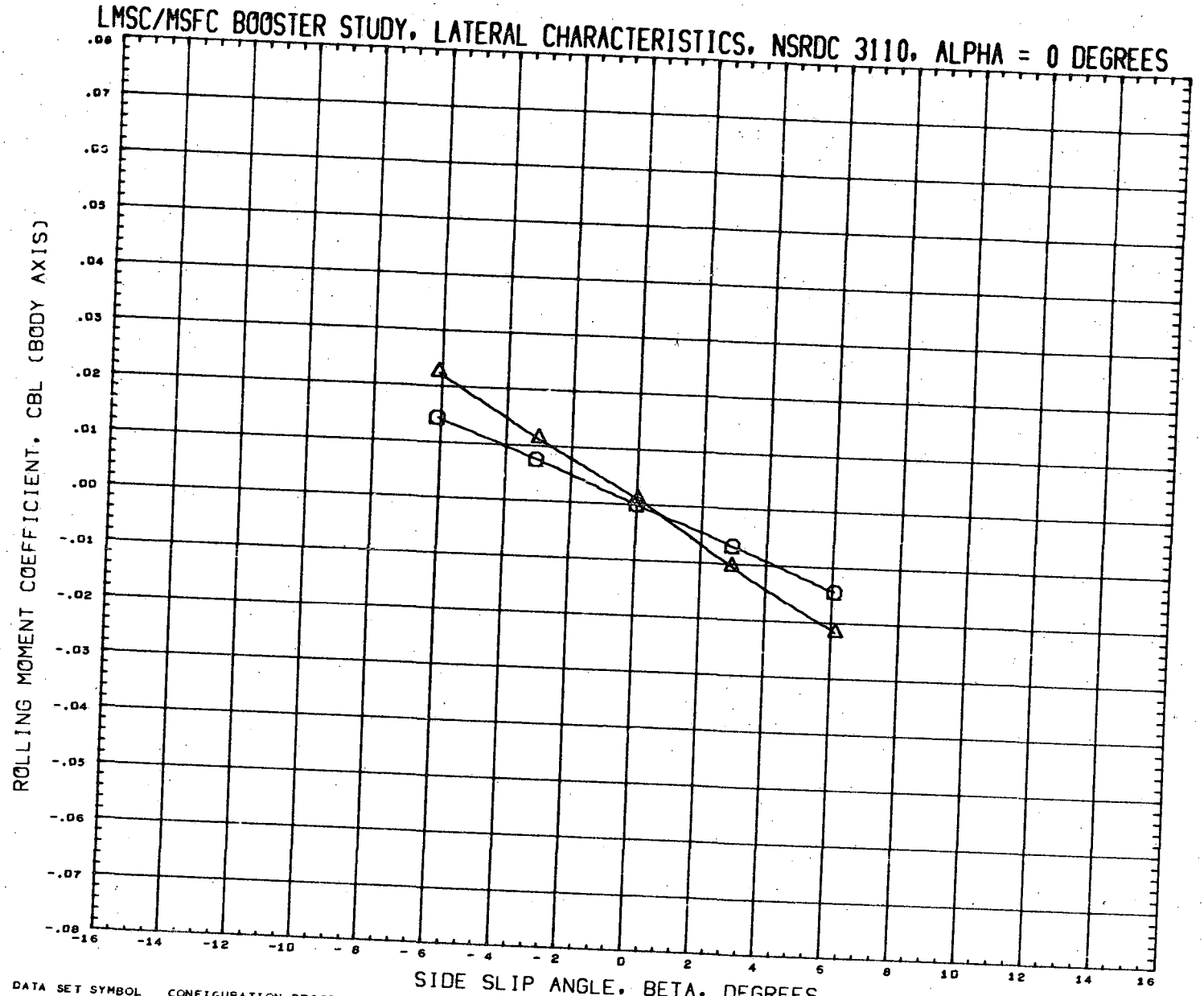
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2217) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 2.000 | 0.000 | 2.000 |
| (RN2249) | △ | NSRDC 3110 MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 2.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

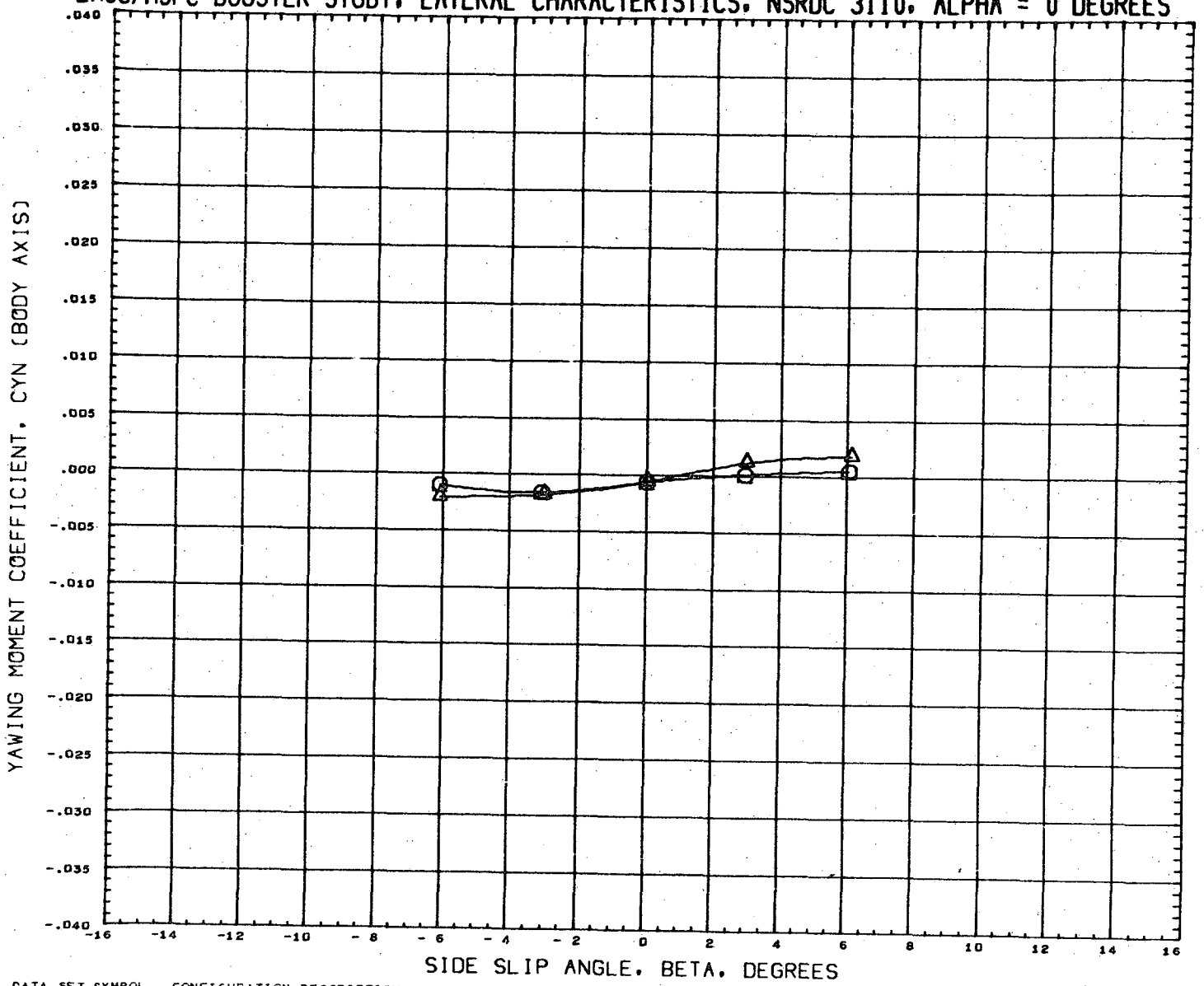



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2218) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 2.000 | 0.000 | 2.000 |
| (RN2250) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 2.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

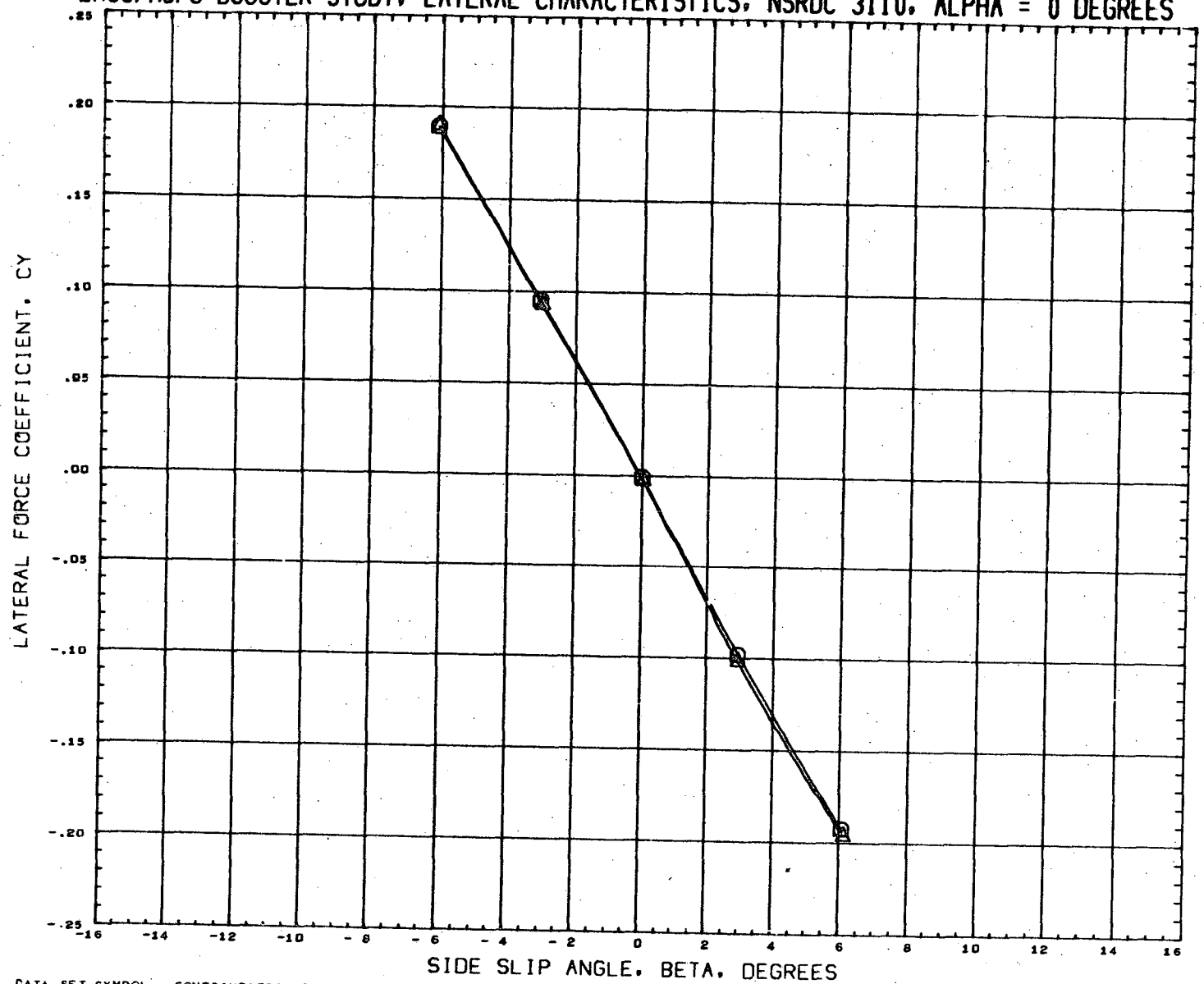



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2218) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 2.000 | 0.000 | 2.000 |
| (RN2250) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 2.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

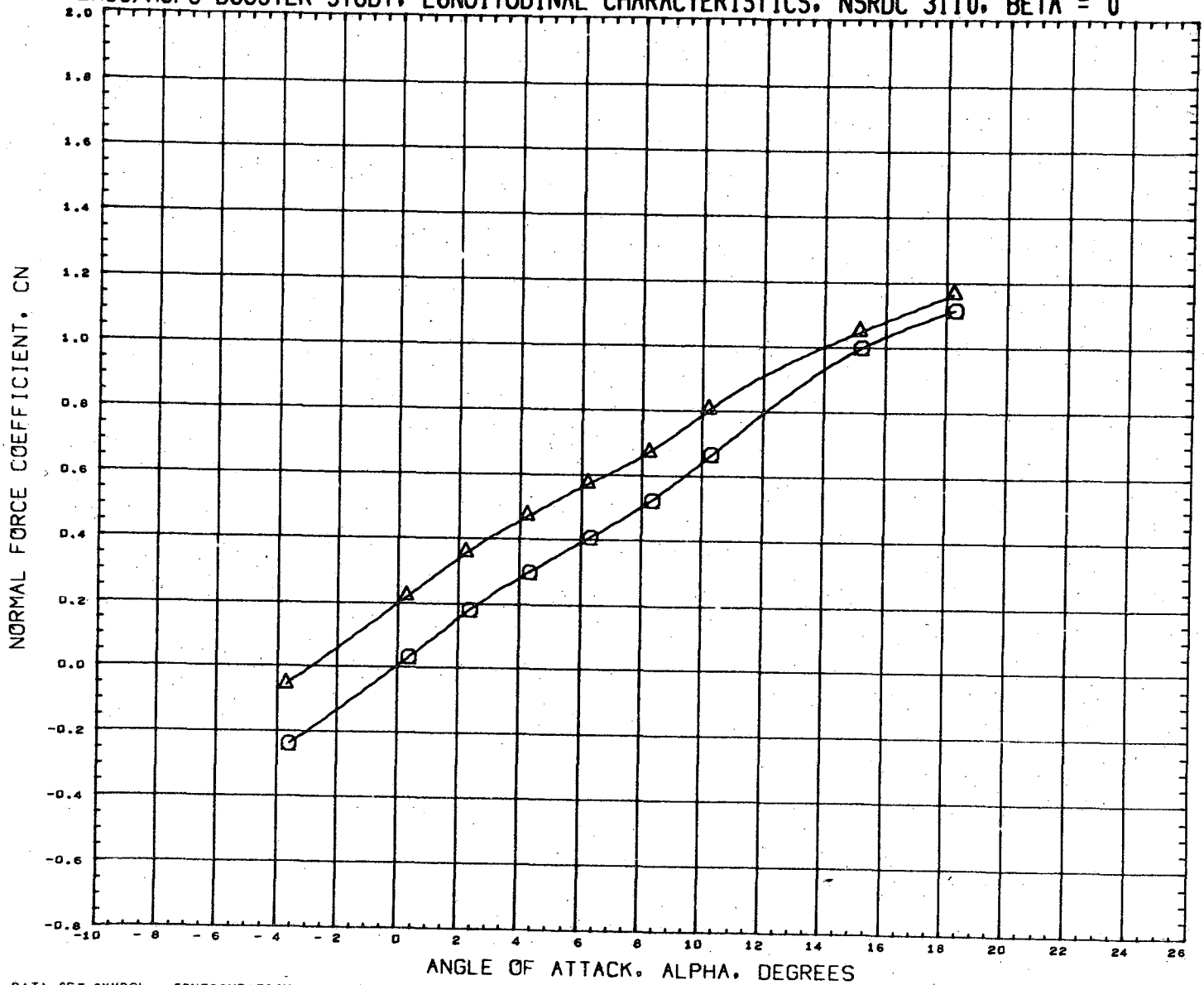



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2218) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 2.000 | 0.000 | 2.000 |
| (RN2250) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 3.000 | 2.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

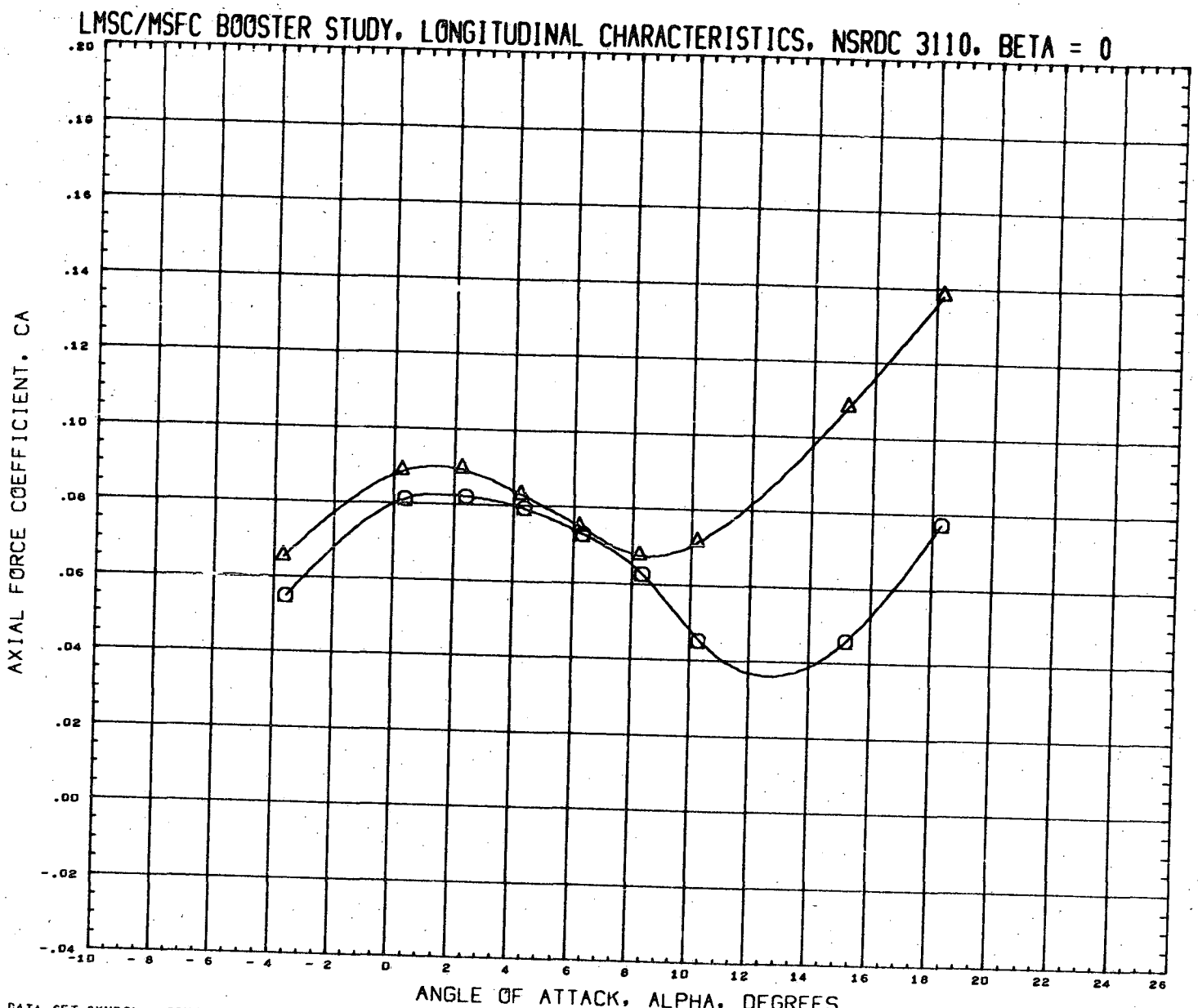
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDFOS | INCIDW | WNGFOS |
|---|---|---|---|---|---|---|
| (RN2221) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 2.000 | 0.000 | 2.000 |
| (RN2253) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 2.000 | 3.000 | 2.000 |

MACH 0.379

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

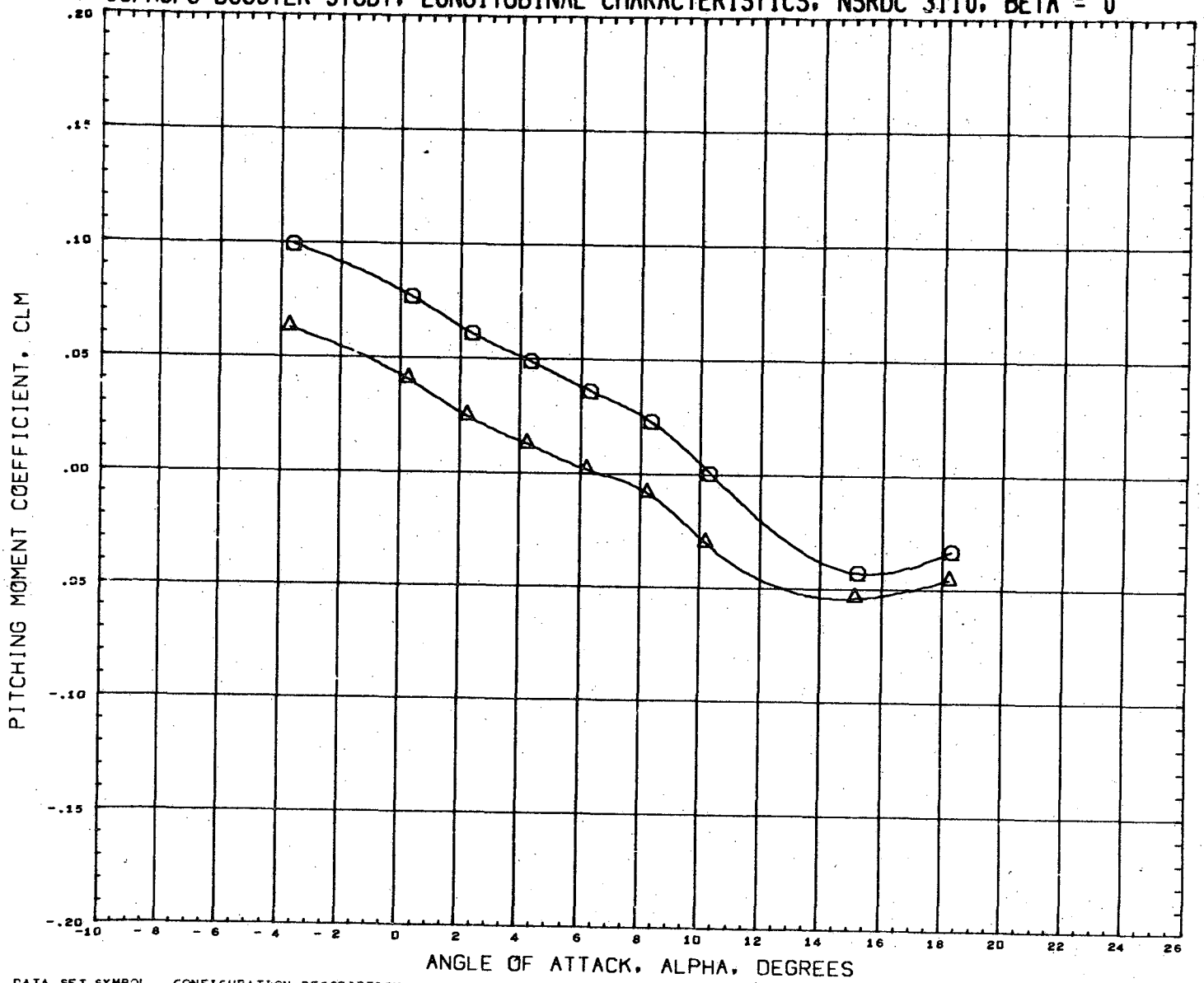



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2221) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 2.000 | 0.000 | 2.000 |
| (RN2253) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 2.000 | 3.000 | 2.000 |

MACH 0.379

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

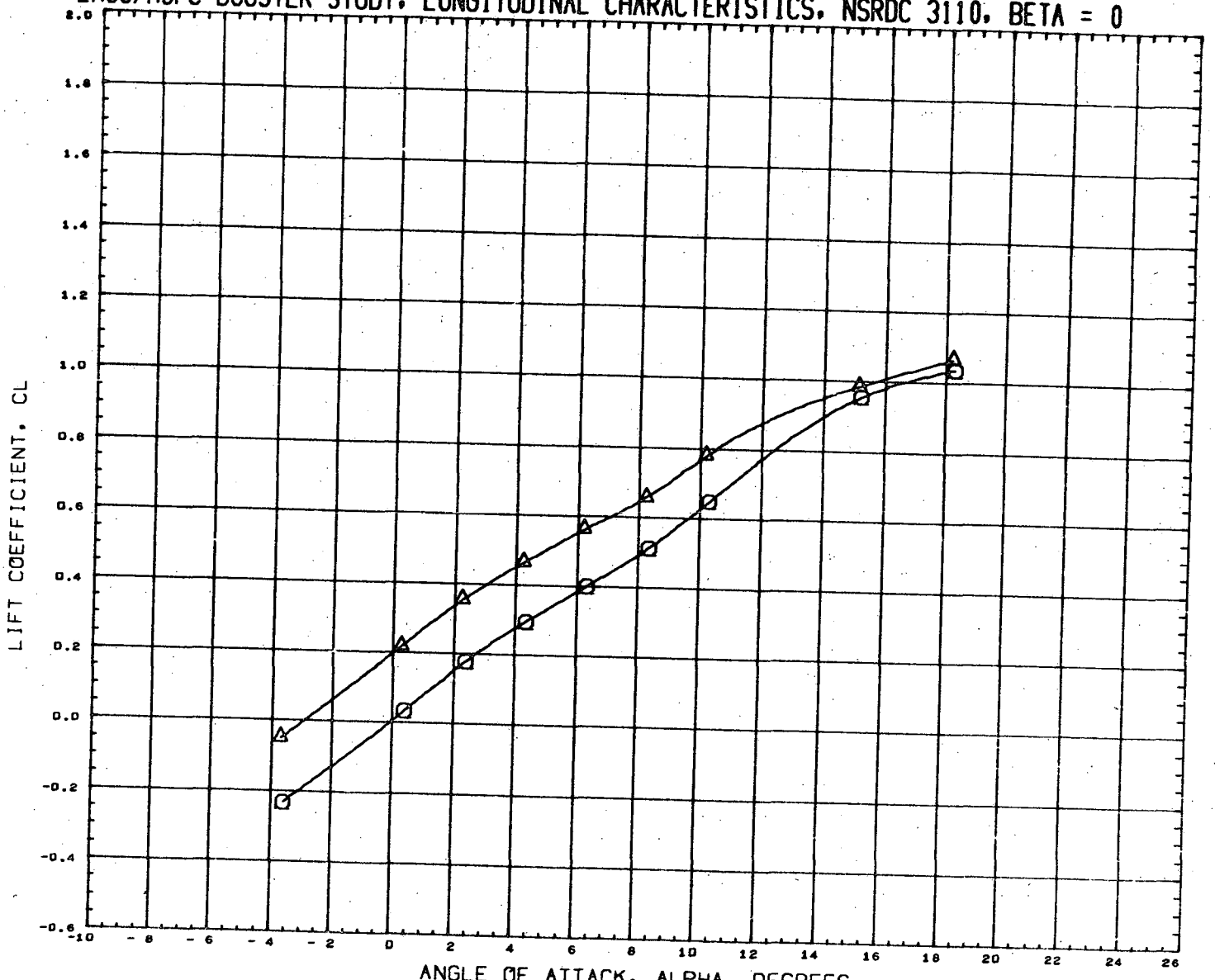



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2221) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 2.000 | 0.000 | 2.000 |
| (RN2253) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 2.000 | 3.000 | 2.000 |

MACH 0.379

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

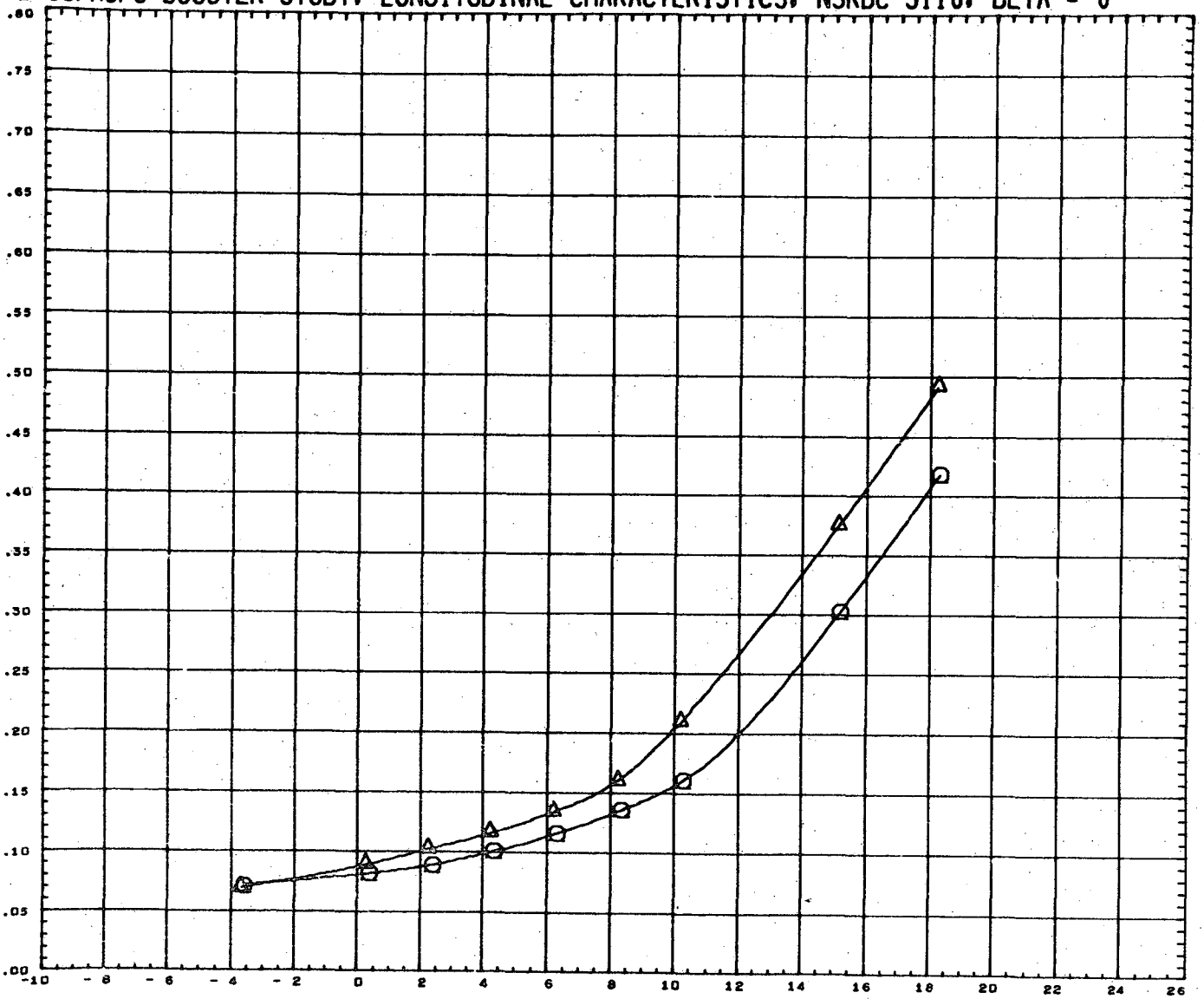



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2221) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 2.000 | 0.000 | 2.000 |
| (RN2253) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 2.000 | 3.000 | 2.000 |

MACH 0.379

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

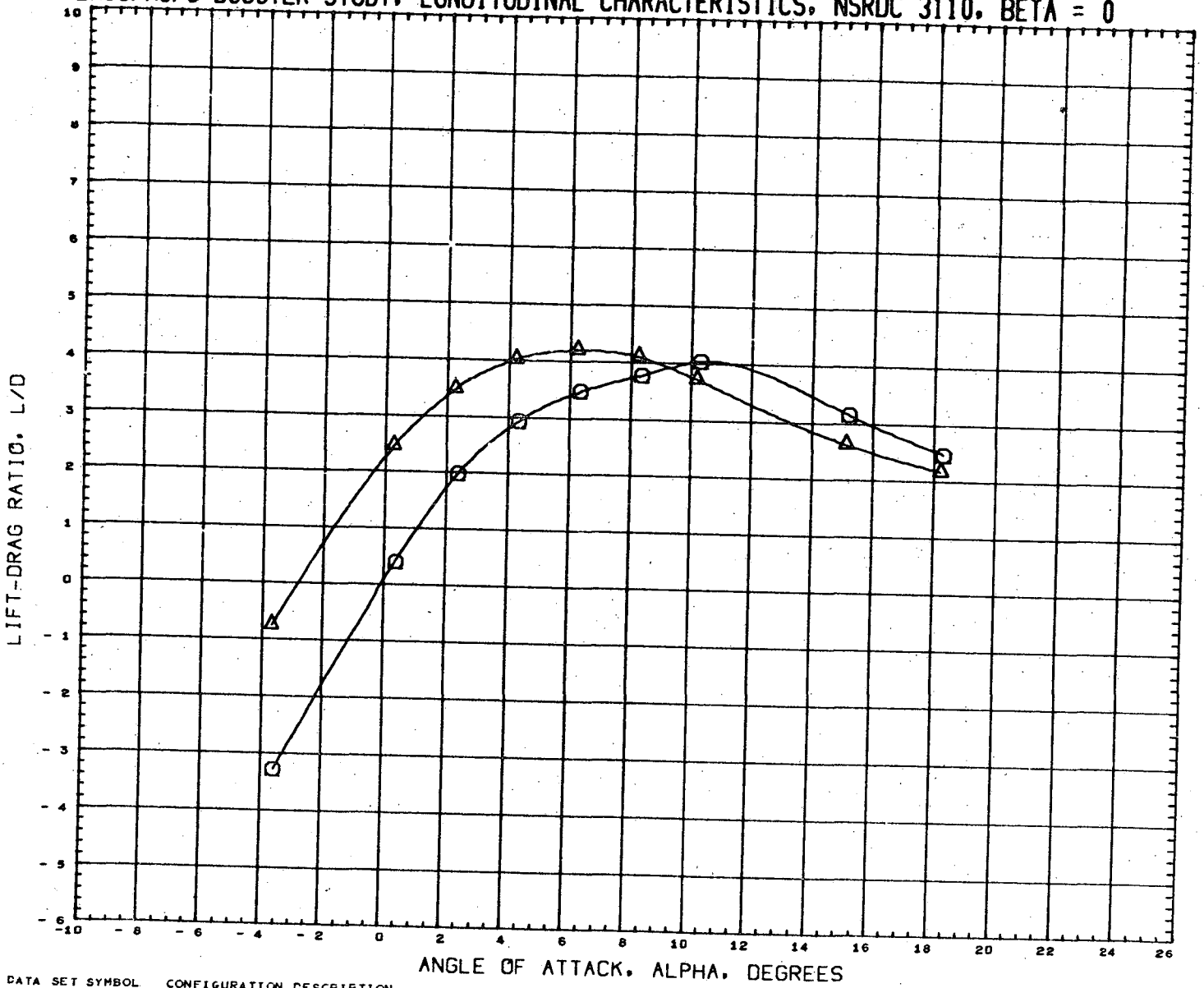



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2221) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 2.000 | 0.000 | 2.000 |
| (RN2253) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 2.000 | 3.000 | 2.000 |

MACH 0.379

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

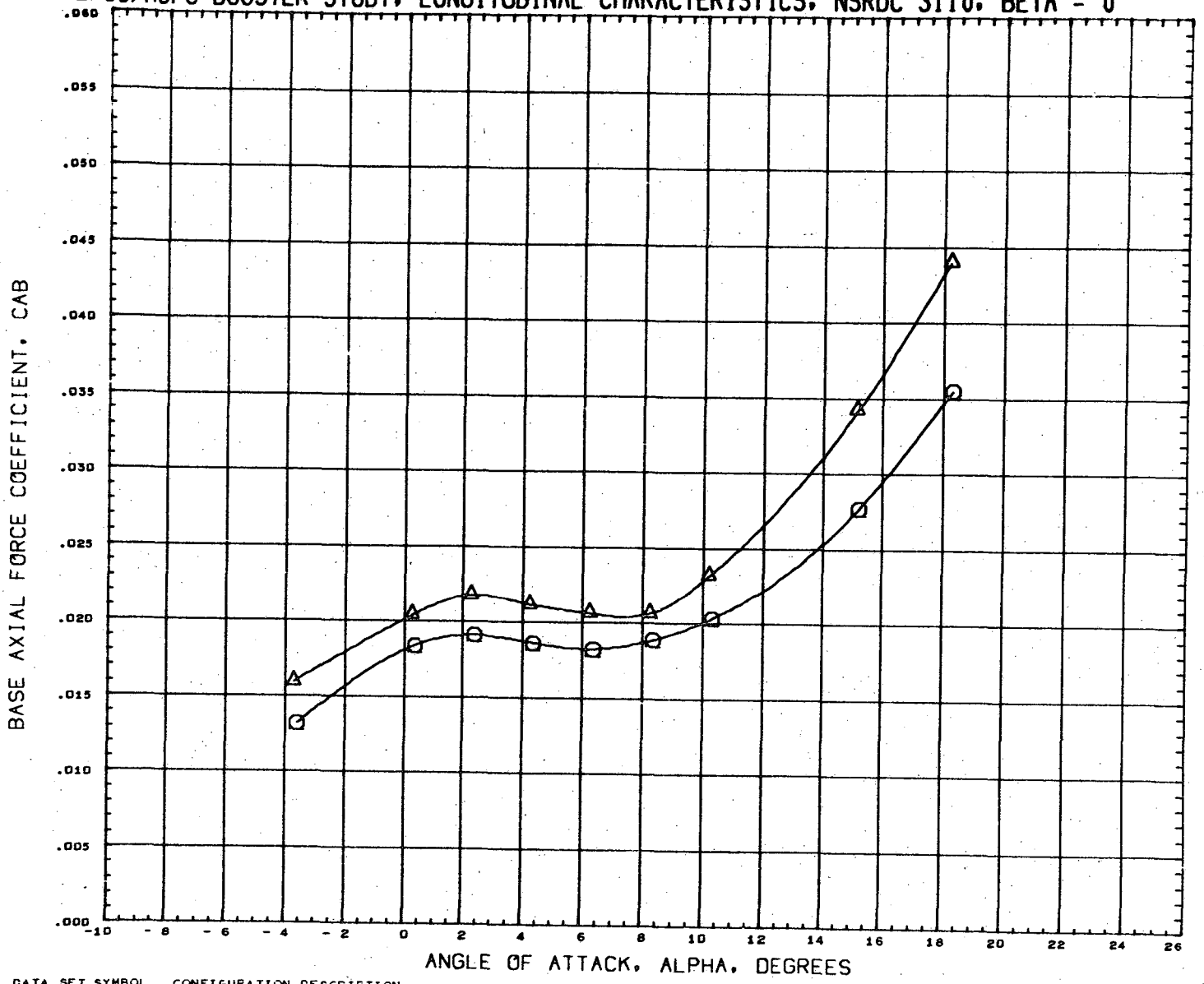



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2221) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 2.000 | 0.000 | 2.000 |
| (RN2253) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 2.000 | 3.000 | 2.000 |

MACH 0.379

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

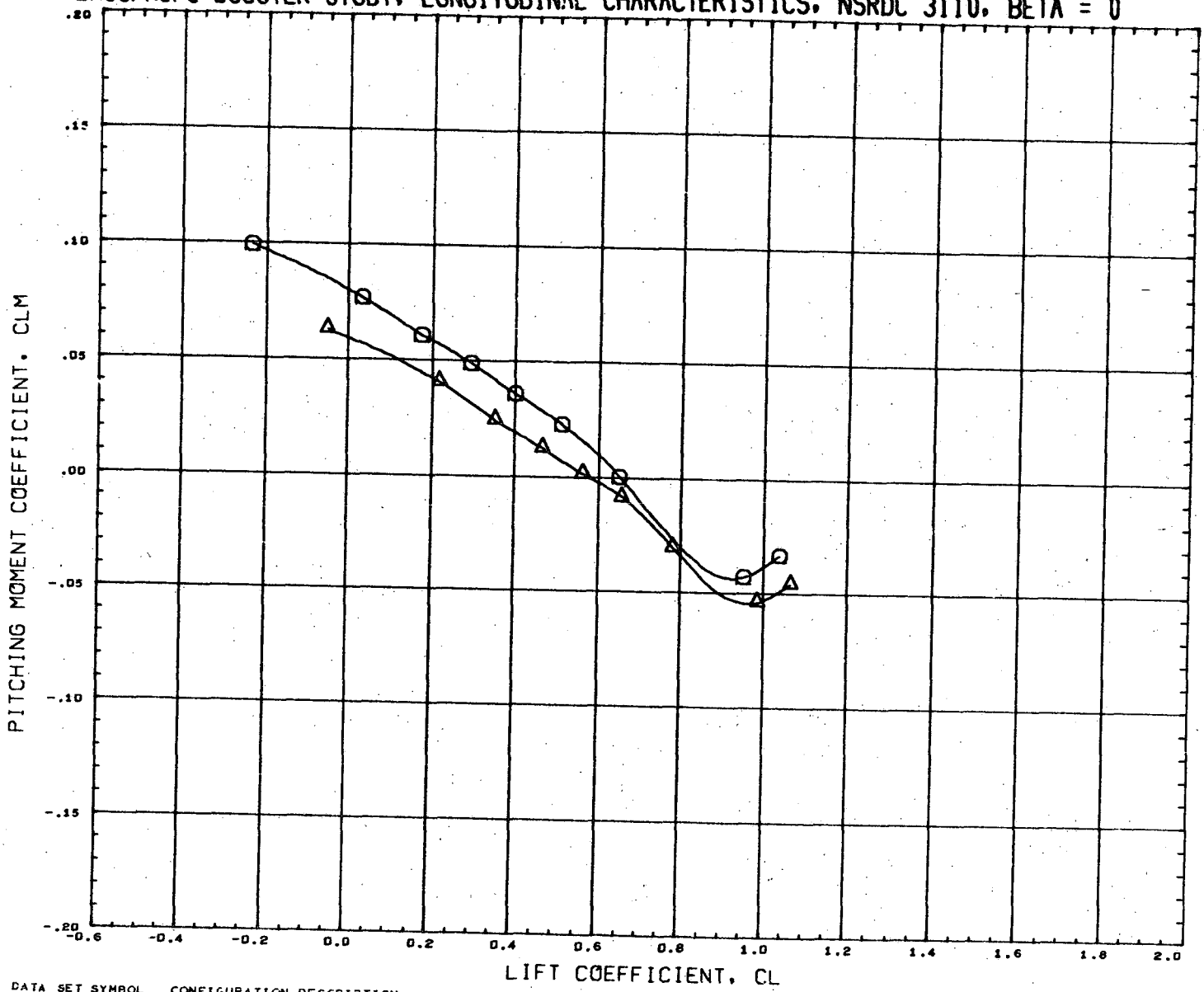



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDFOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2221) ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 2.000 | 0.000 | 2.000 |
| (RN2253) △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 2.000 | 3.000 | 2.000 |

MACH 0.379

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

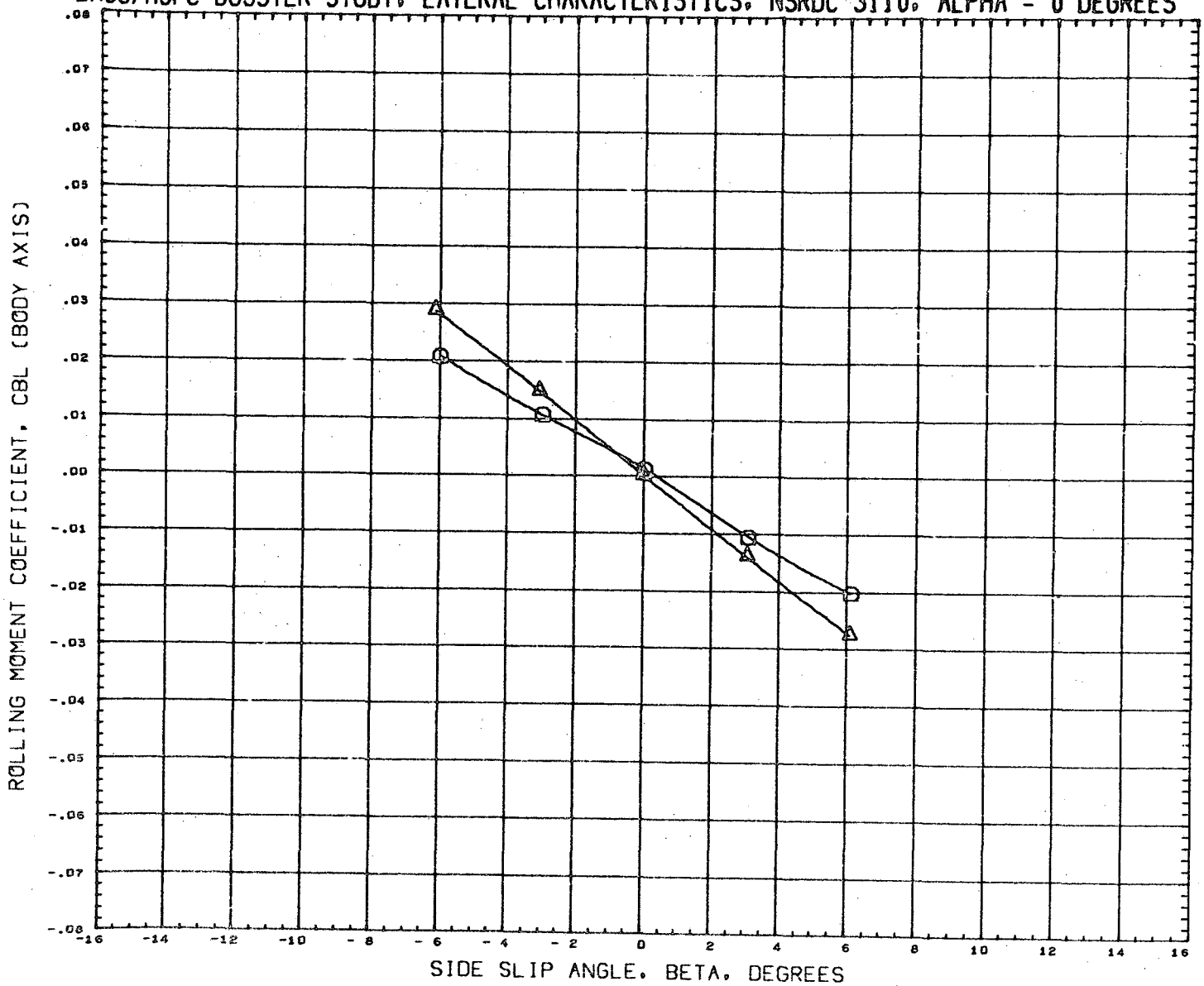



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2221) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 2.000 | 0.000 | 2.000 |
| (RN2253) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 2.000 | 3.000 | 2.000 |

MACH 0.379

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY. LATERAL CHARACTERISTICS. NSRDC 3110. ALPHA = 0 DEGREES

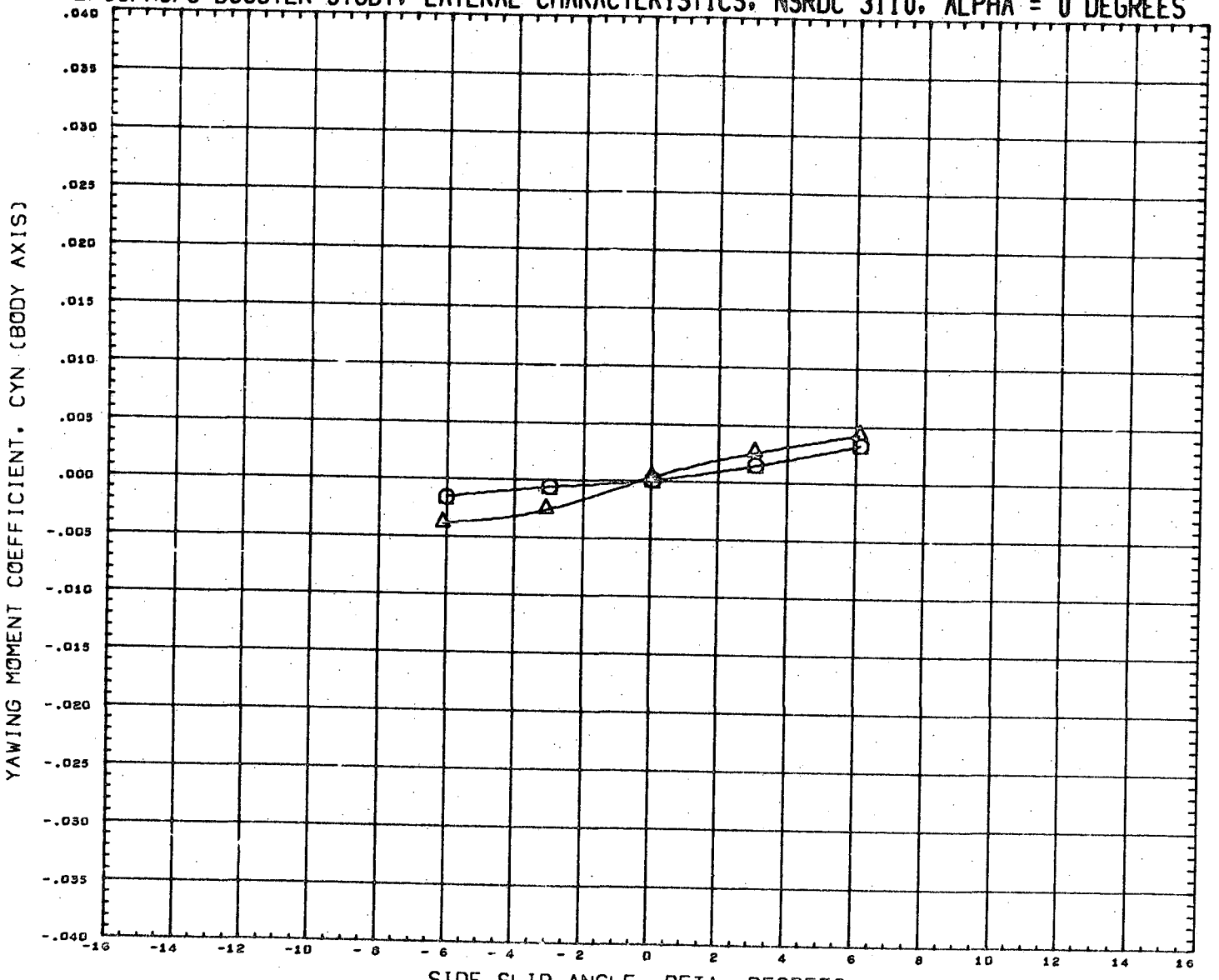



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2222) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 2.000 | 0.000 | 2.000 |
| (RN2254) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 2.000 | 3.000 | 2.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

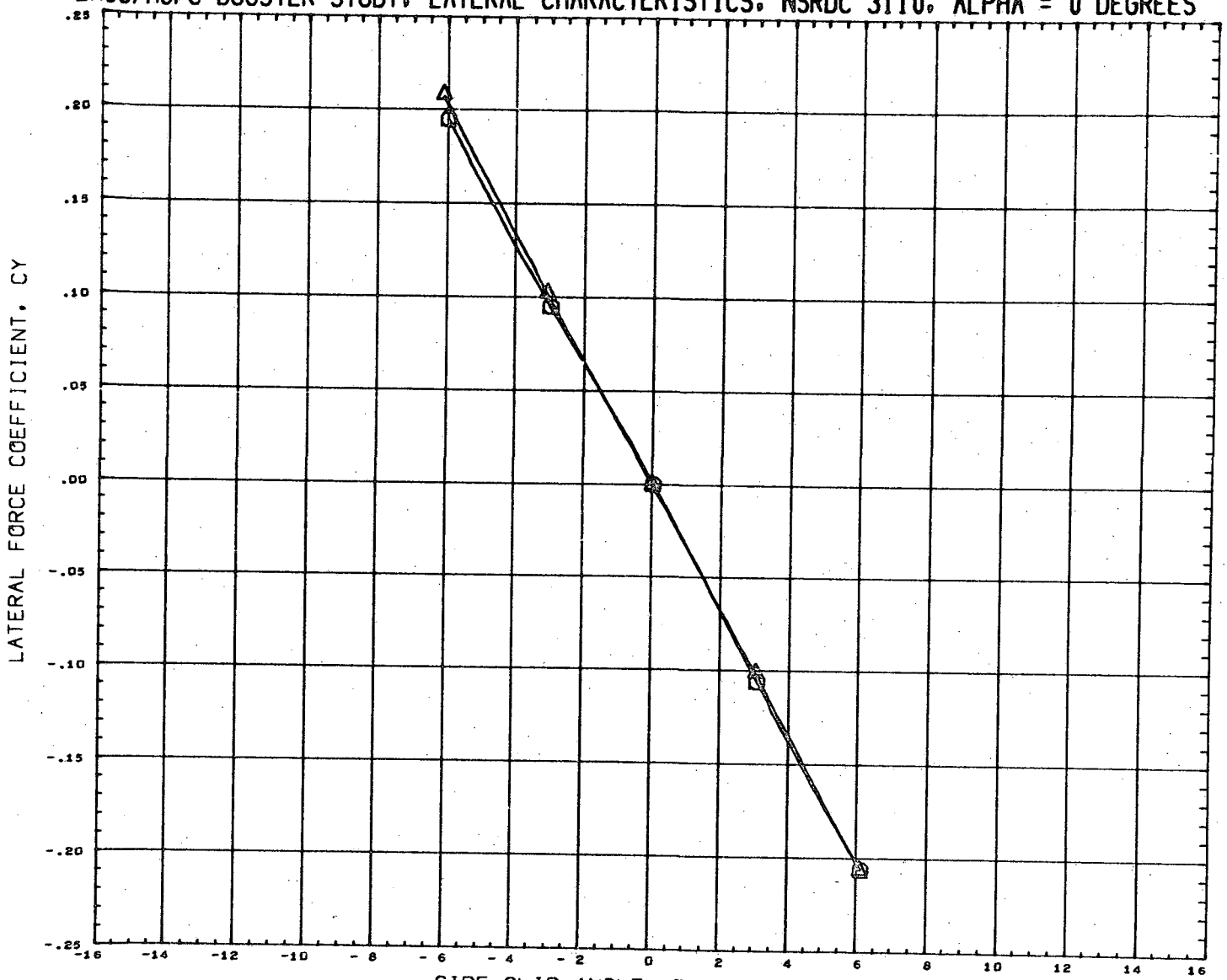



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2222) ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 2.000 | 0.000 | 2.000 |
| (RN2254) △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 2.000 | 3.000 | 2.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

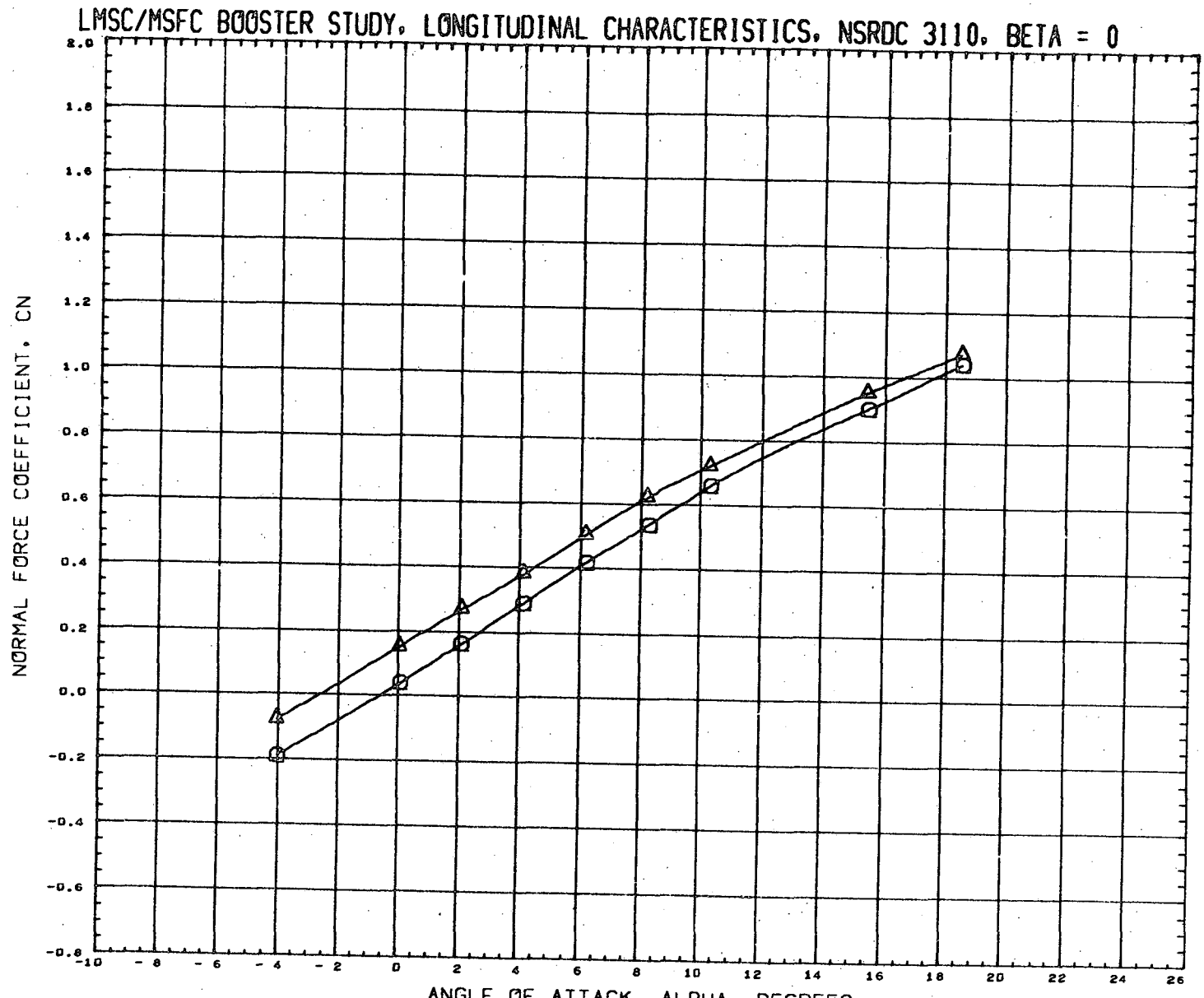
# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES




| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDFOS | INCIDW | WNGFOS |
|---|---|---|---|---|---|
| (RN2222) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 2.000 | 0.000 | 2.000 |
| (RN2254) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 2.000 | 3.000 | 2.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

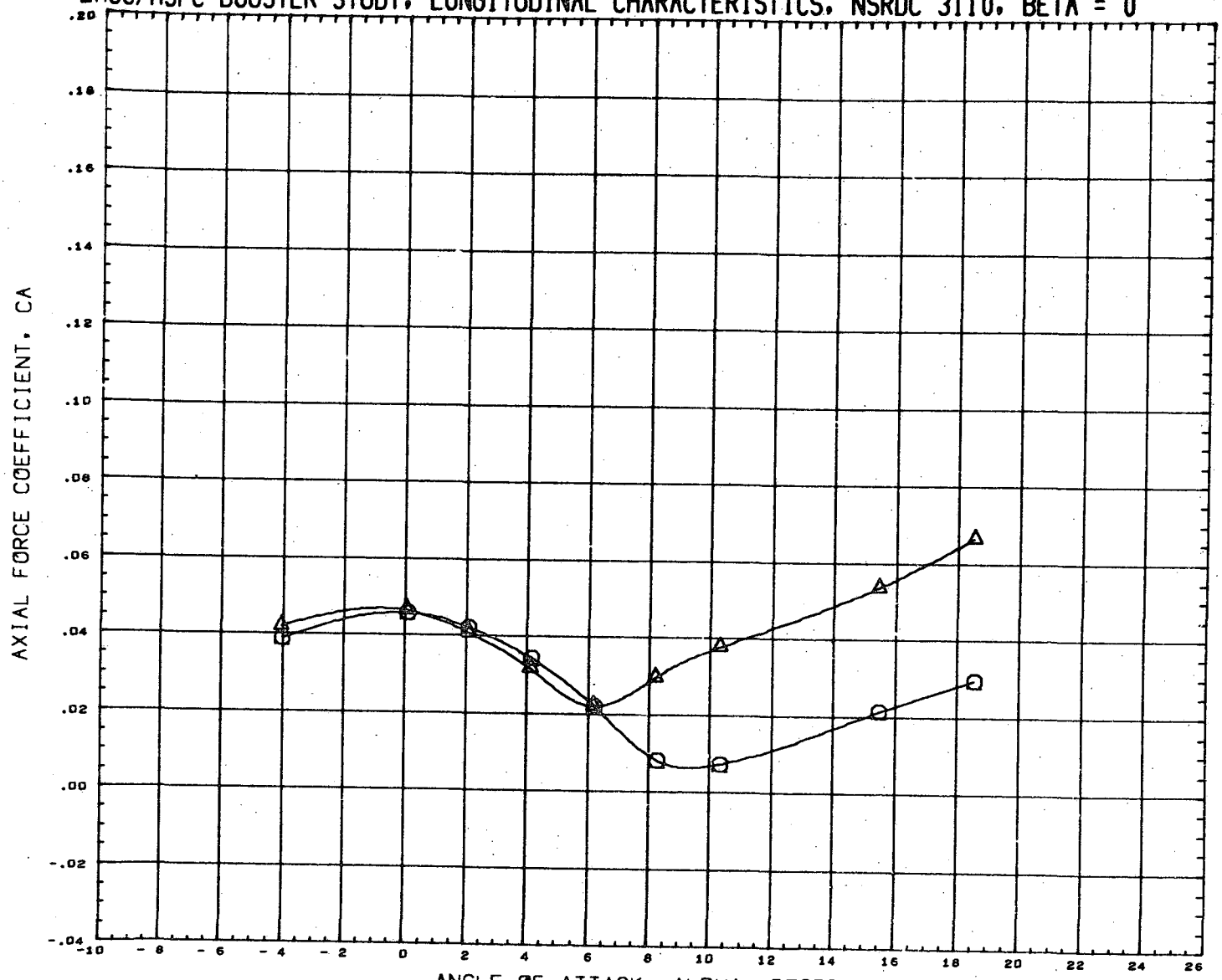



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2257) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 1.000 | 0.000 | 1.000 |
| (RN2285) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 1.000 | 3.000 | 1.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

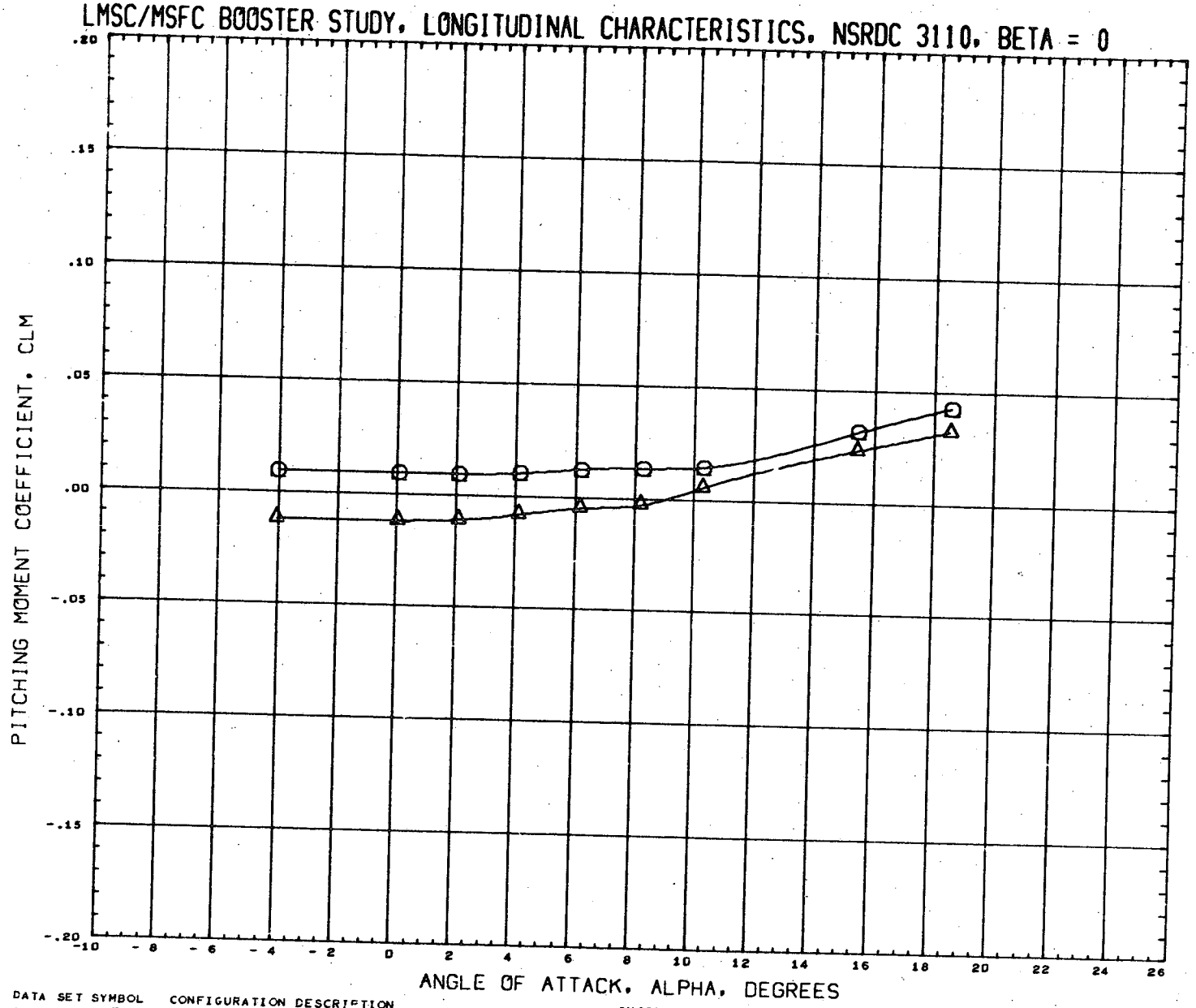
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2257) ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 1.000 | 0.000 | 1.000 |
| (RN2285) △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 1.000 | 3.000 | 1.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

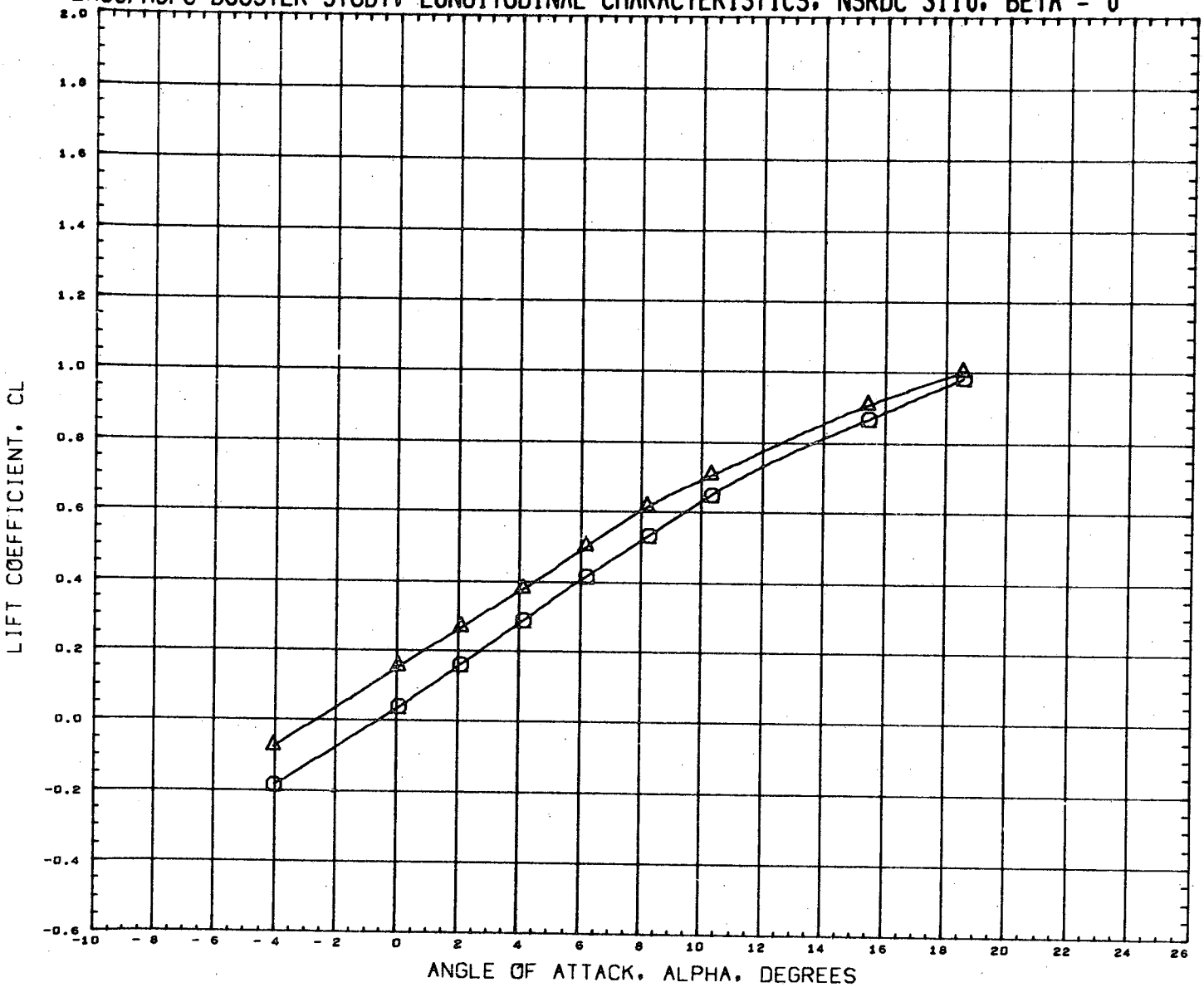



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2257) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 1.000 | 0.000 | 1.000 |
| (RN2285) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 1.000 | 3.000 | 1.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

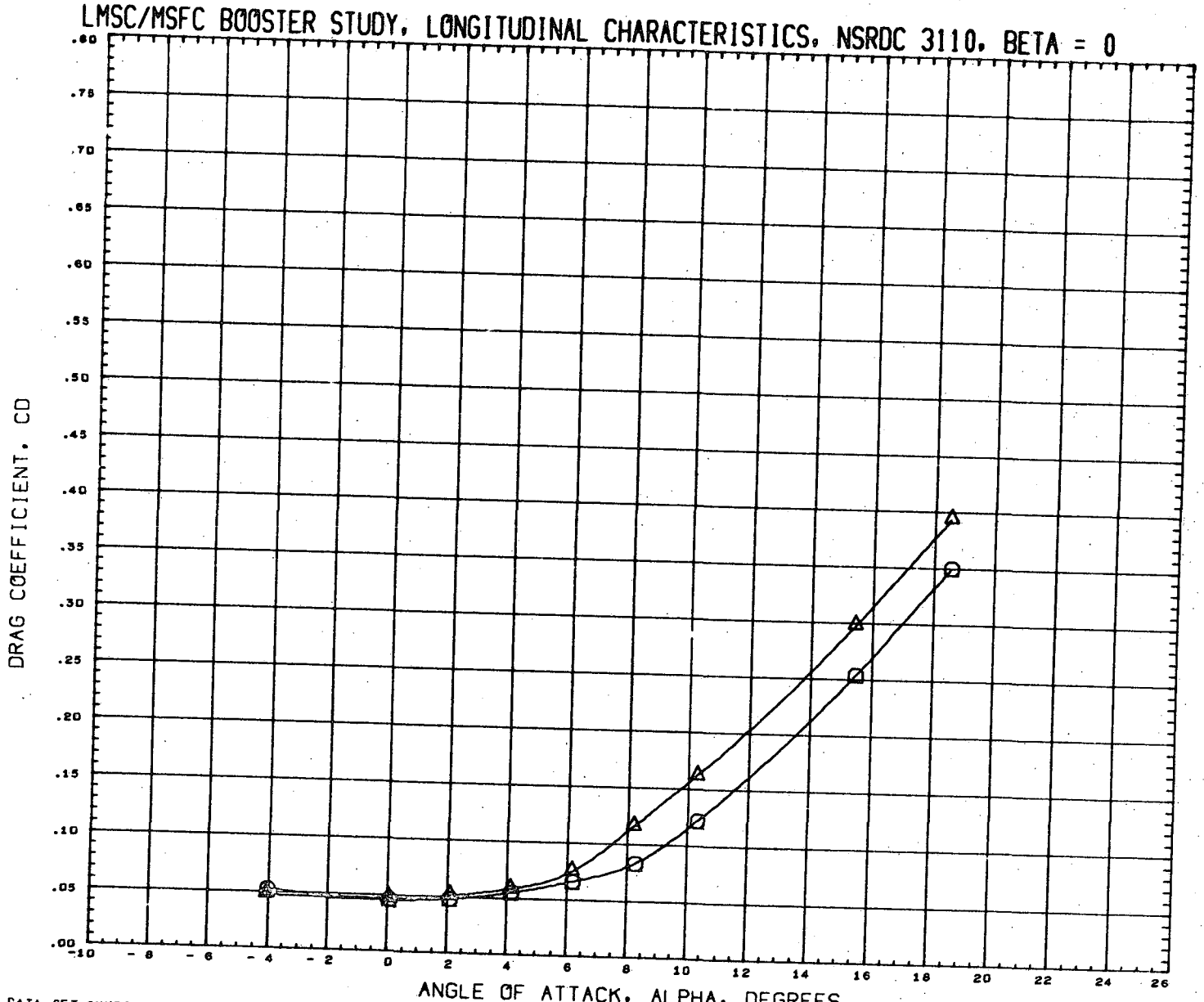
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2257) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 1.000 | 0.000 | 1.000 |
| (RN2285) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 1.000 | 3.000 | 1.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION |
|---|---|---|
| (RN2257) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 |
| (RN2285) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 |

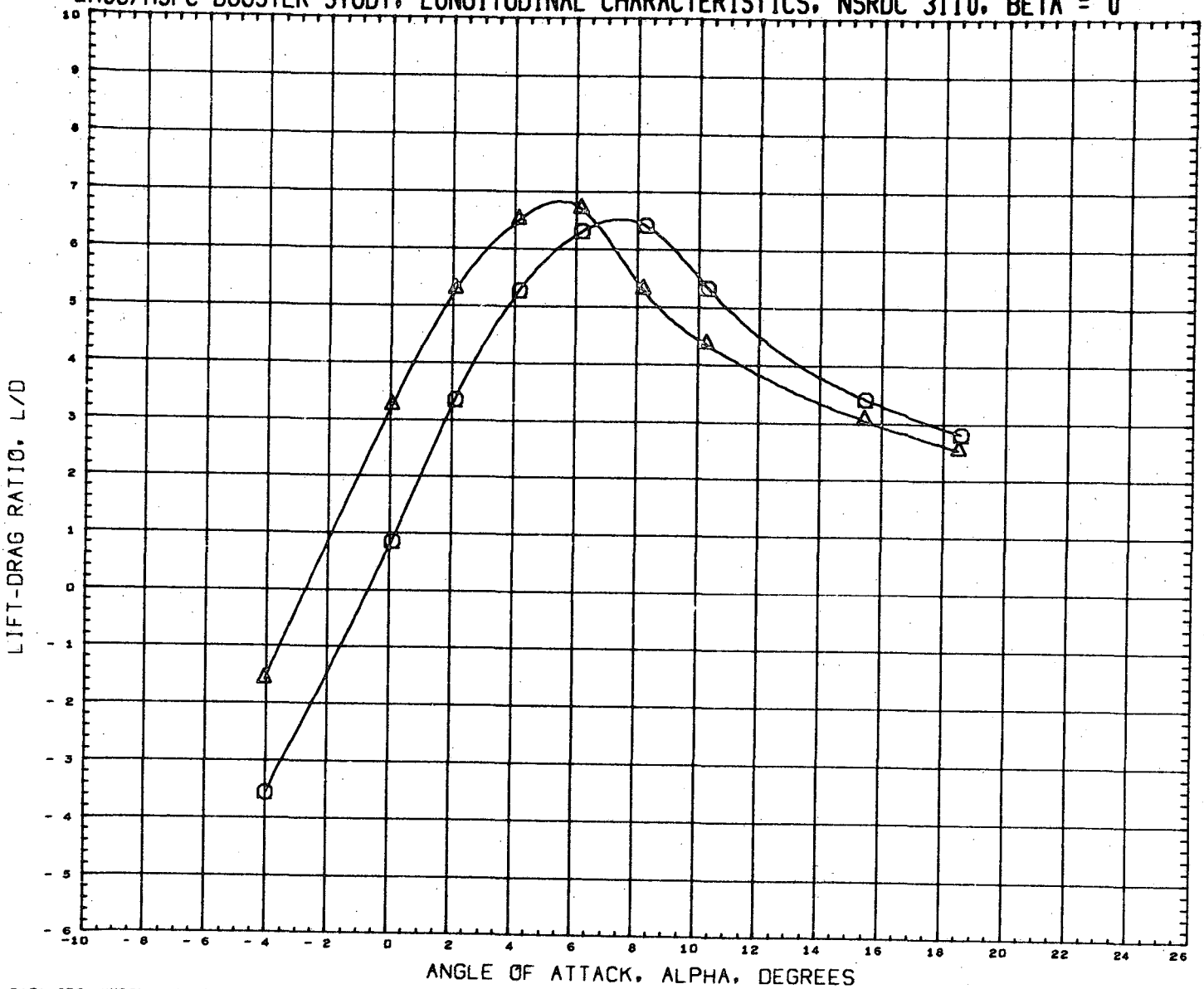
| INCIDC | CNDFOS | INCIDW | WNGFOS |
|---|---|---|---|
| 3.000 | 1.000 | 0.000 | 1.000 |
| 3.000 | 1.000 | 3.000 | 1.000 |

MACH 0.380

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

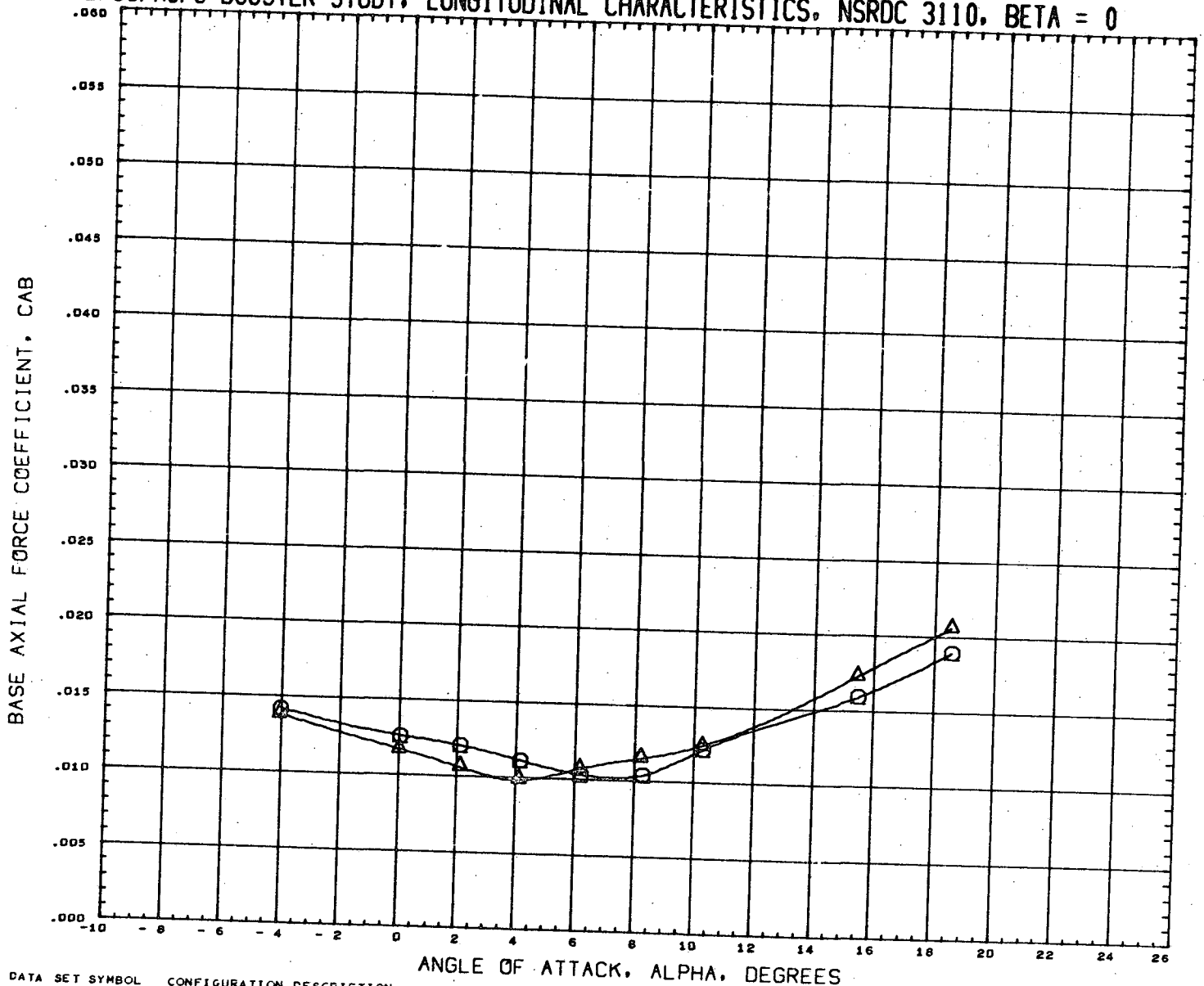



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2257) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 1.000 | 0.000 | 1.000 |
| (RN2285) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 1.000 | 3.000 | 1.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0



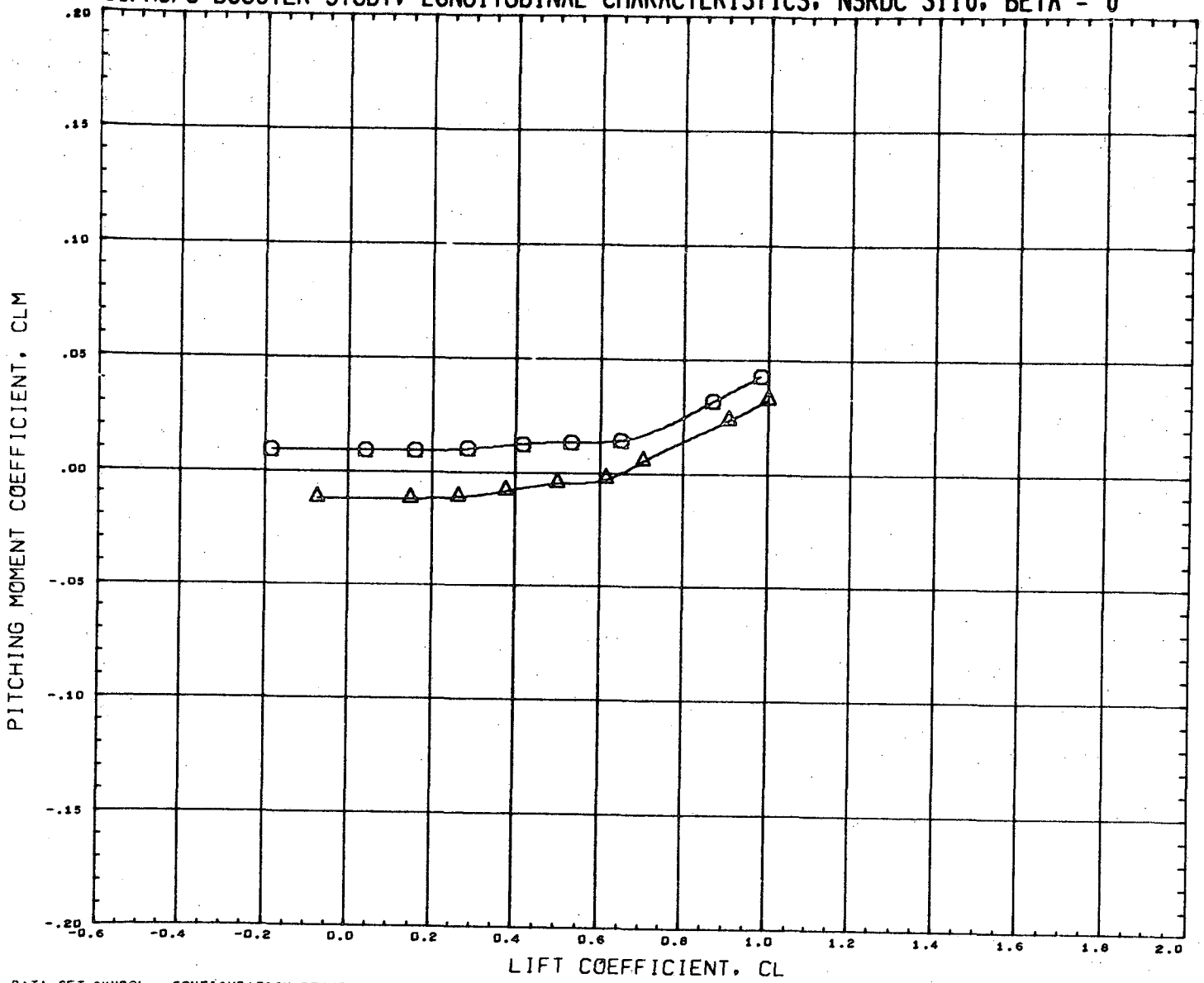

| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2257) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 1.000 | 0.000 | 1.000 |
| (RN2285) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 1.000 | 3.000 | 1.000 |

MACH 0.380

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

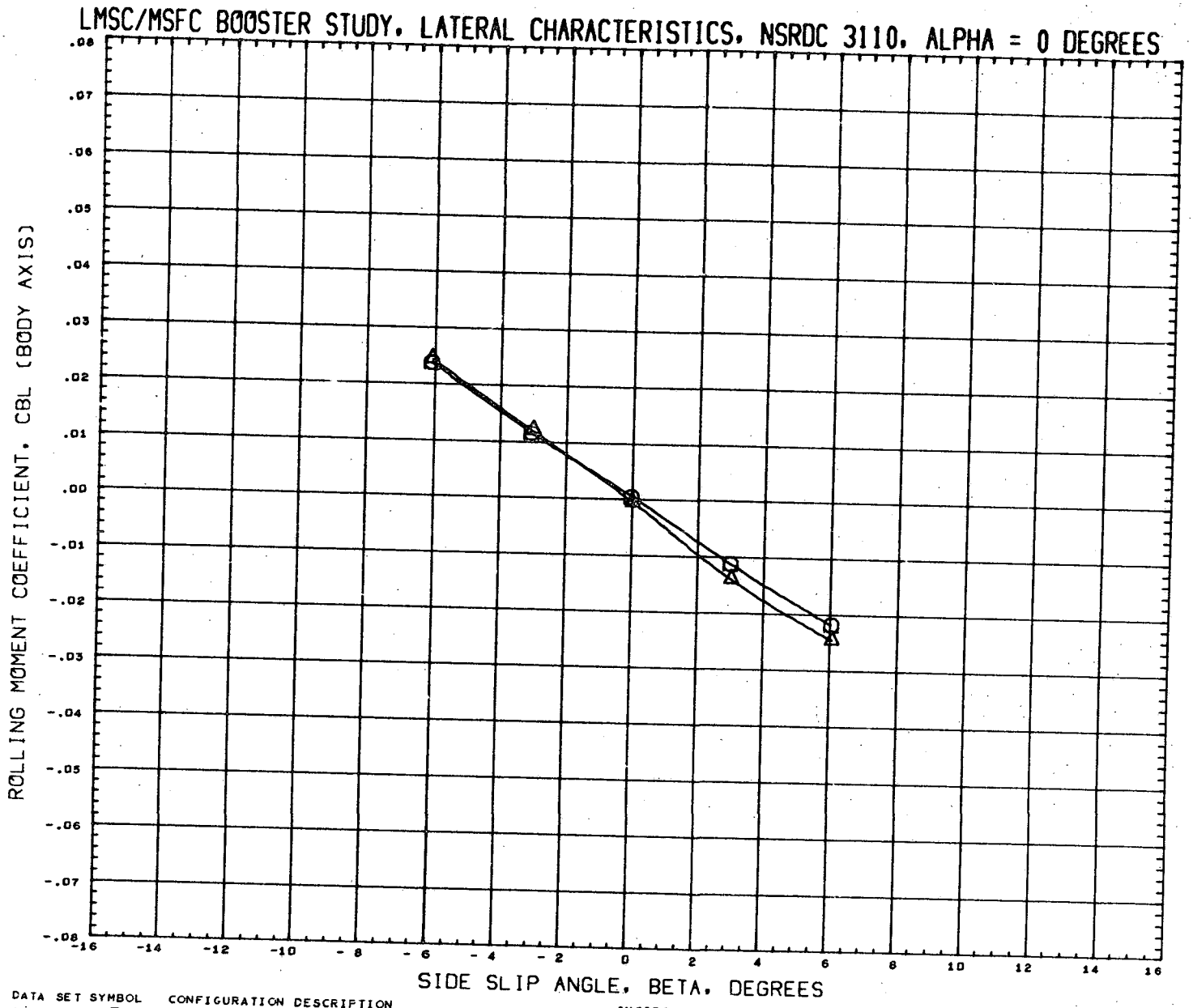
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2257) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 1.000 | 0.000 | 1.000 |
| (RN2285) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 1.000 | 3.000 | 1.000 |

MACH 0.380

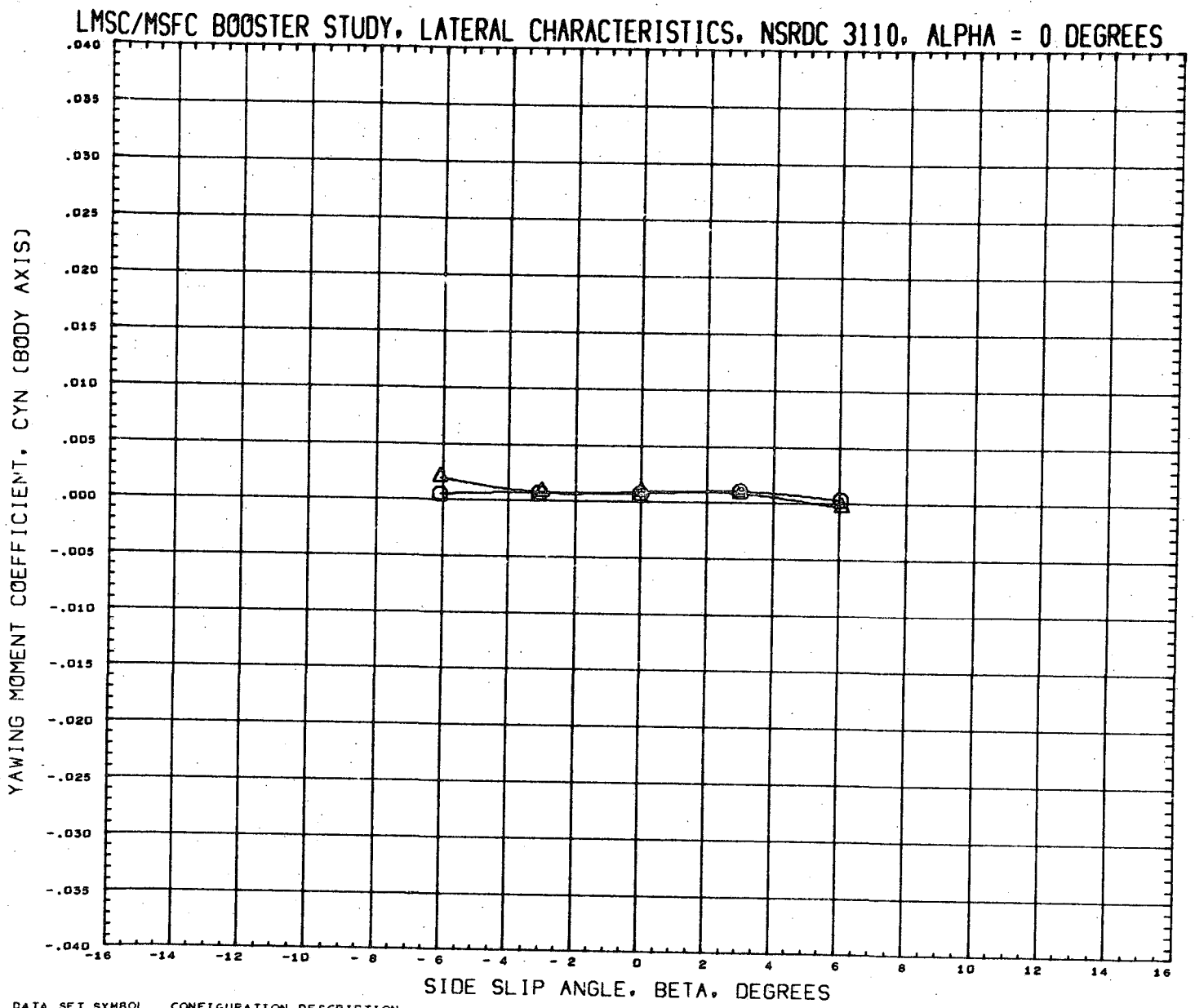
| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |




| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2258) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 1.000 | 0.000 | 1.000 |
| (RN2286) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 1.000 | 3.000 | 1.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

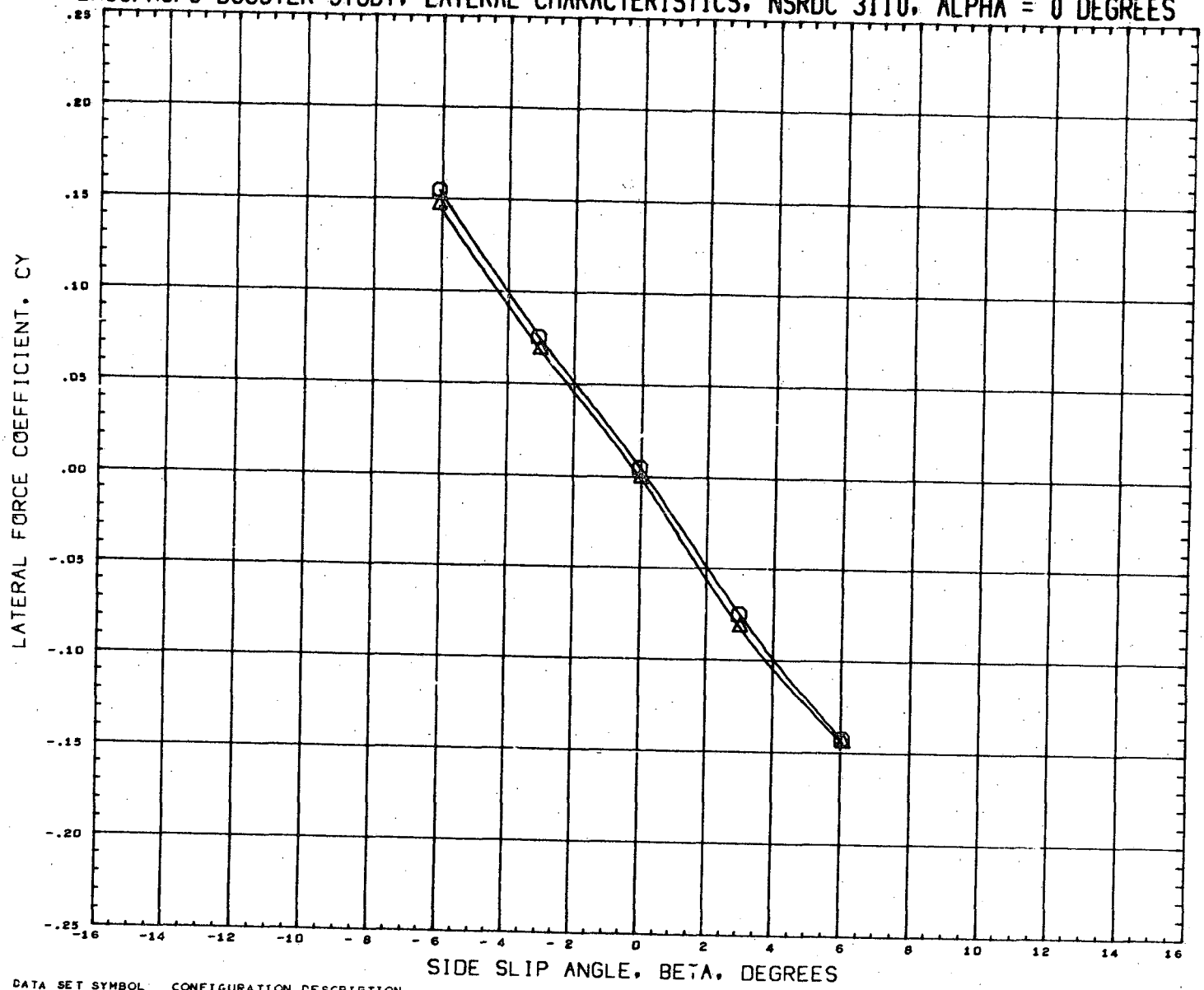



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2258) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 1.000 | 0.000 | 1.000 |
| (RN2286) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 1.000 | 3.000 | 1.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

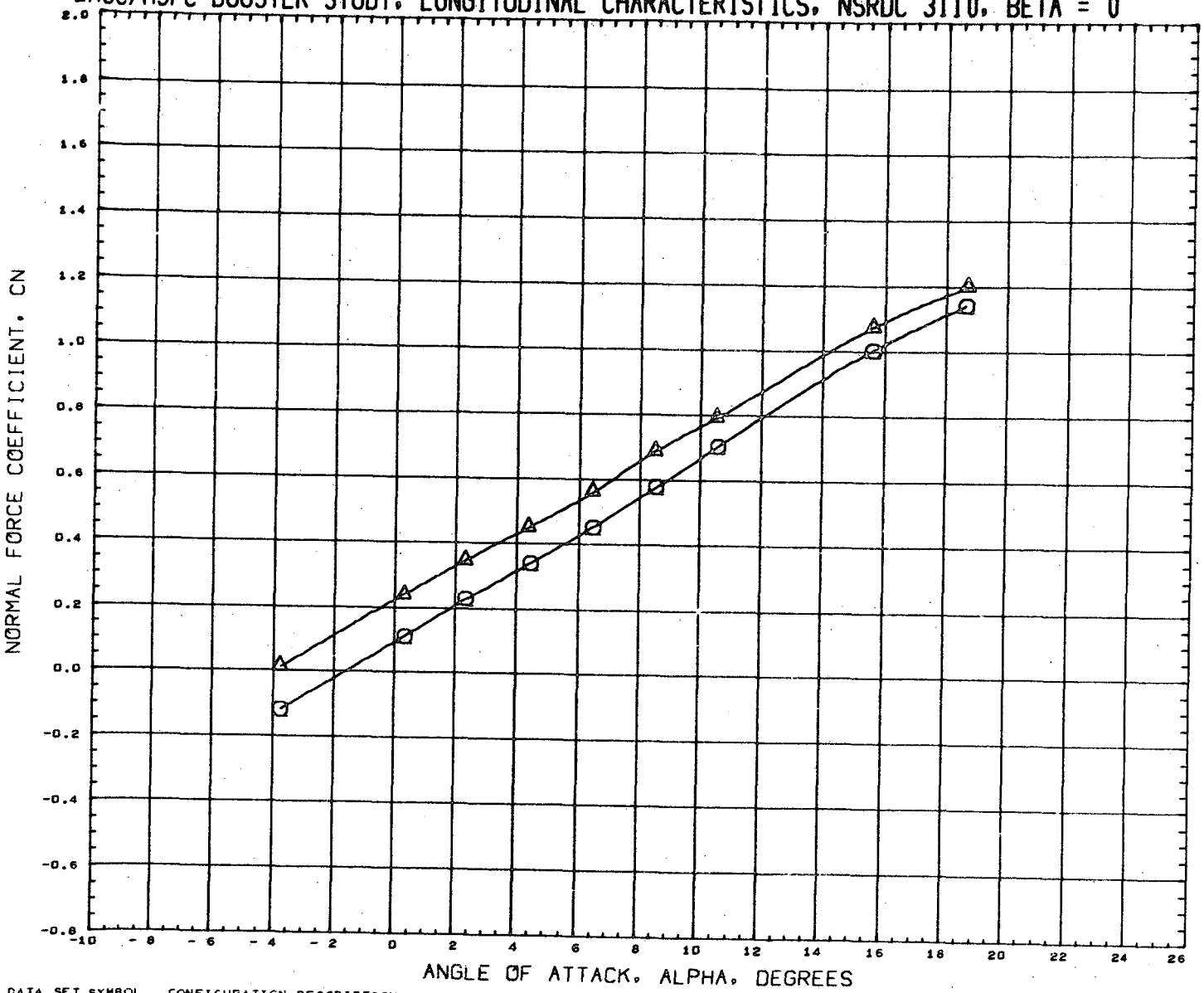



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2258) ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 1.000 | 0.000 | 1.000 |
| (RN2286) △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 1.000 | 3.000 | 1.000 |

MACH 0.360

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

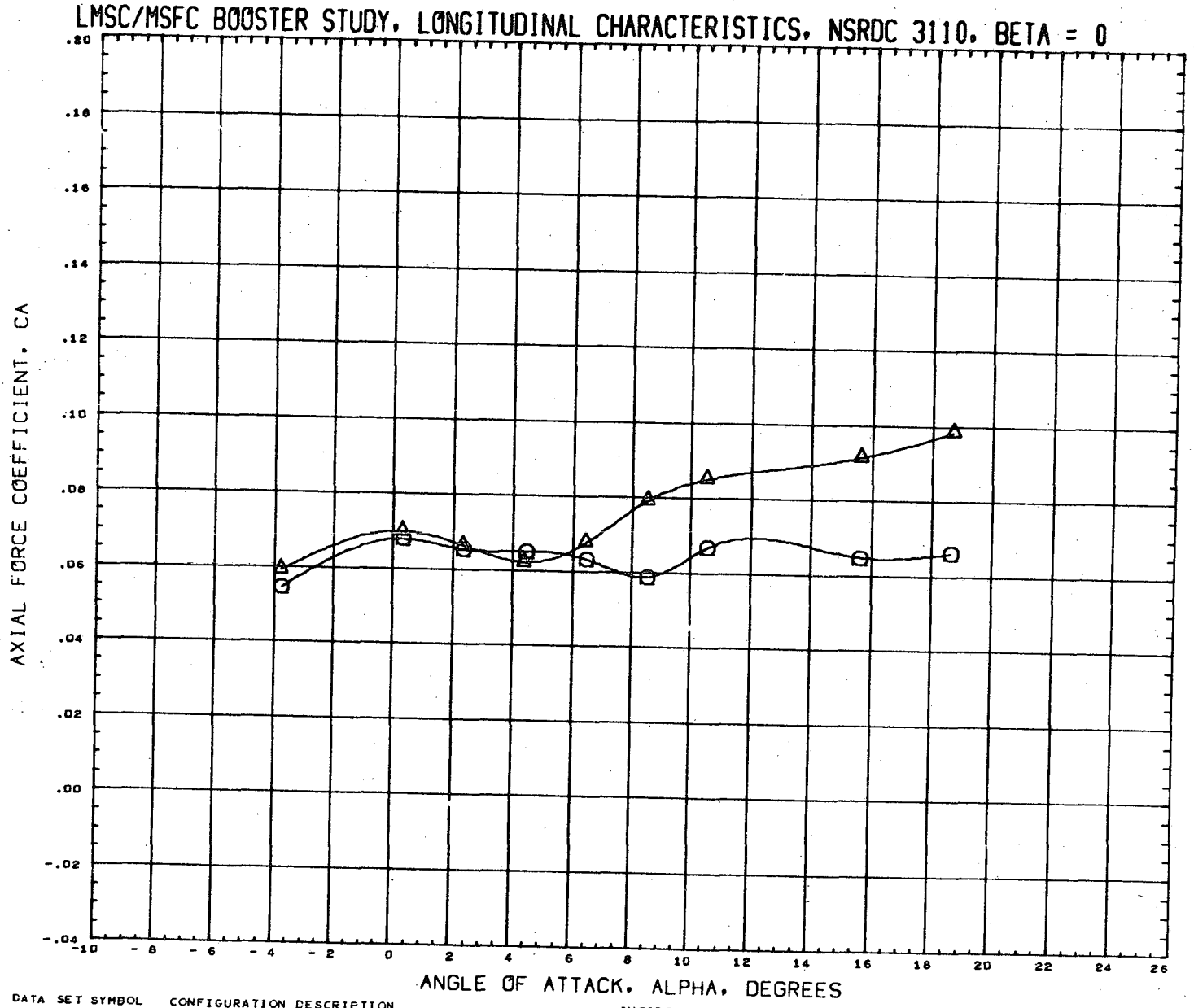
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2261) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 1.000 | 0.000 | 1.000 |
| (RN2289) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 1.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

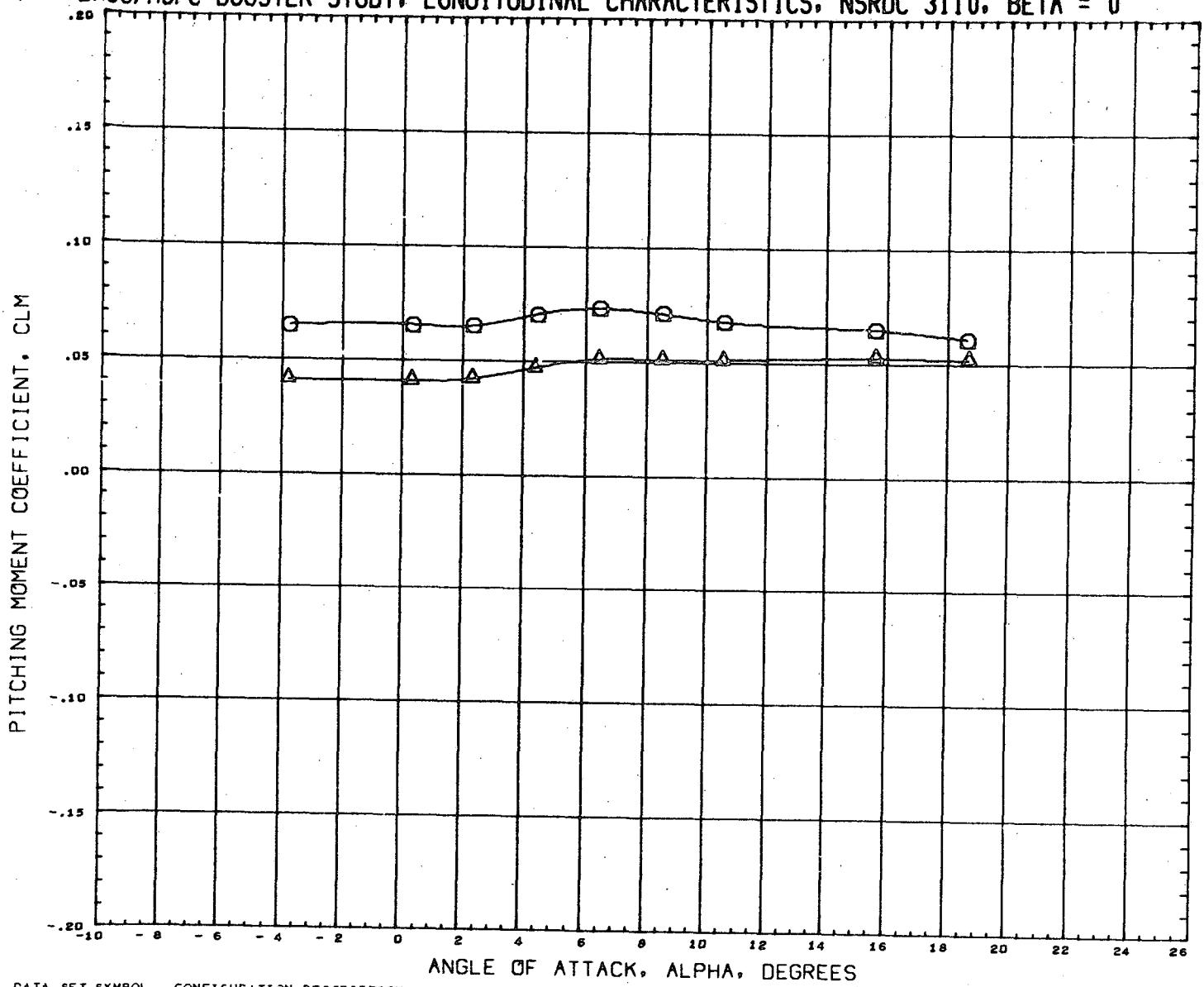



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2261) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 1.000 | 0.000 | 1.000 |
| (RN2289) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 1.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

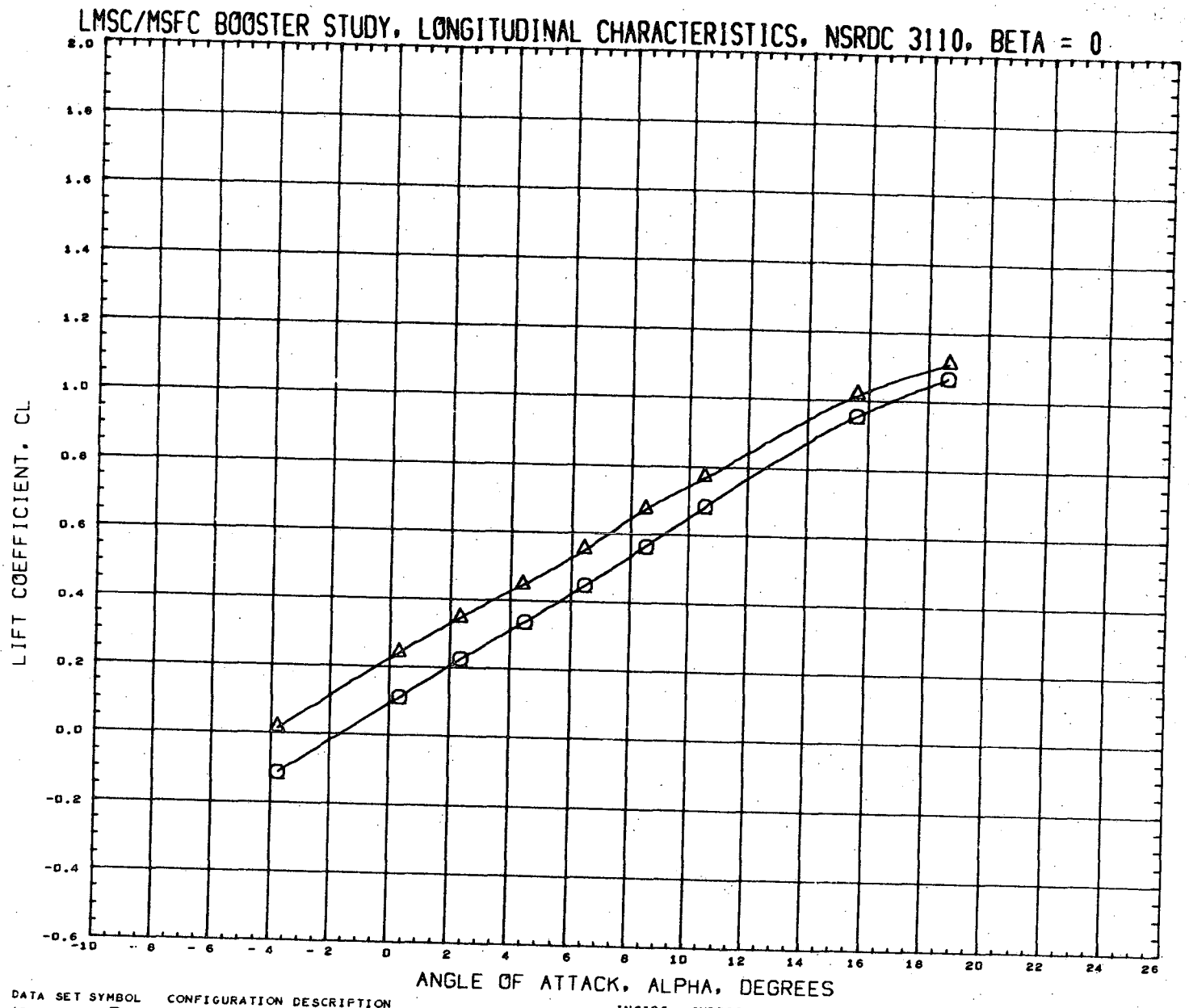
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2261) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 1.000 | 0.000 | 1.000 |
| (RN2289) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 1.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

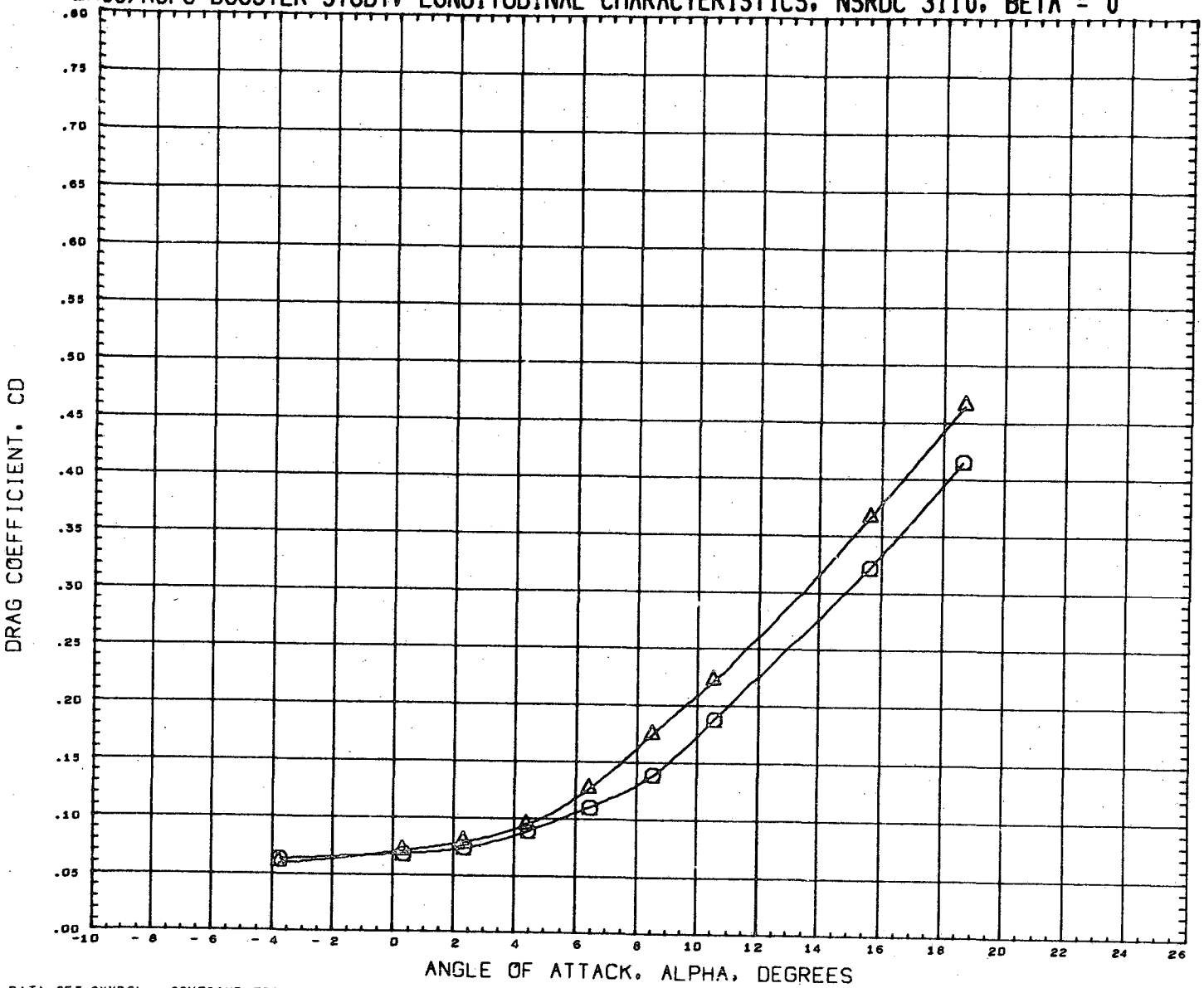



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2261) ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 1.000 | 0.000 | 1.000 |
| (RN2289) △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 1.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0



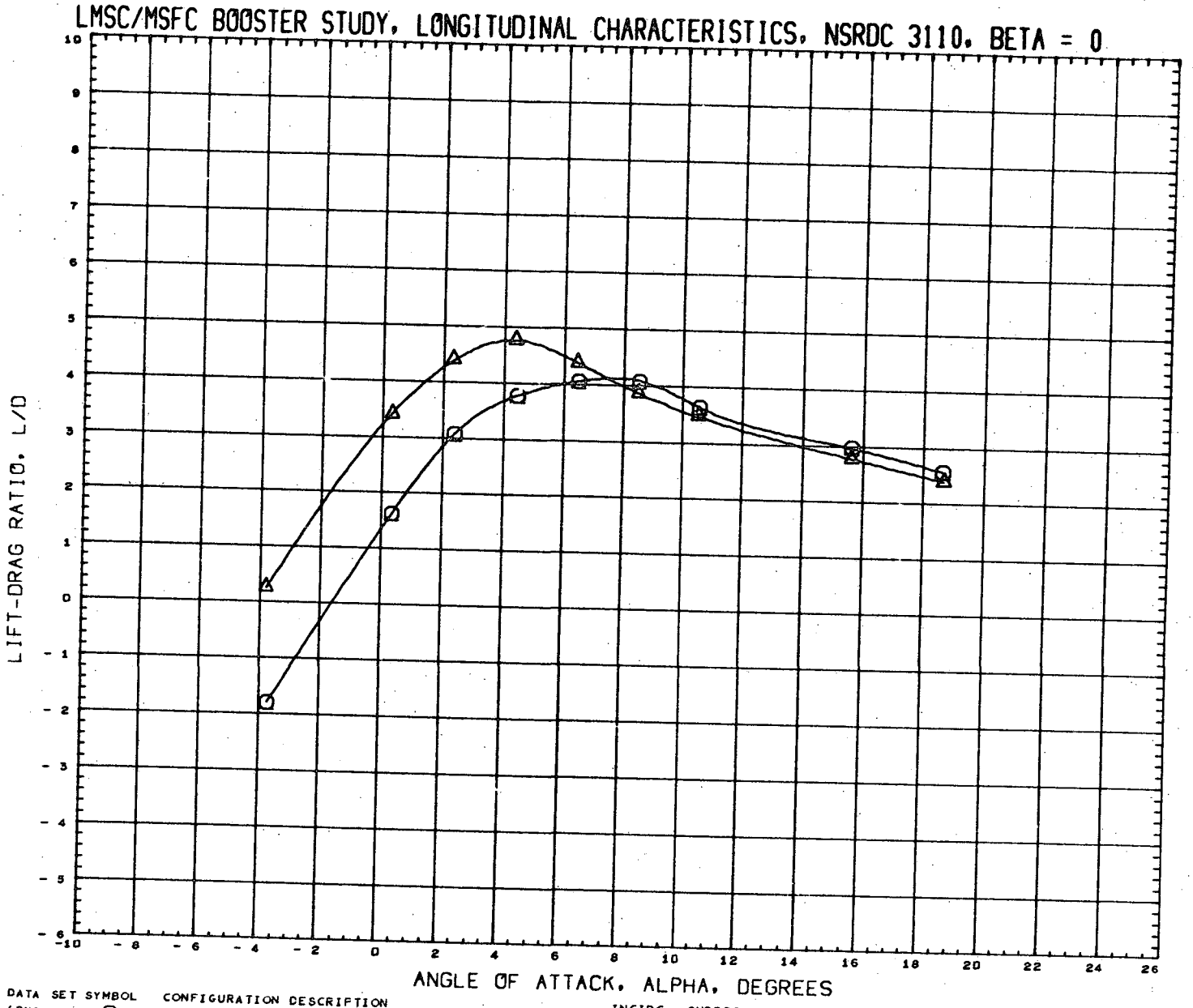

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION |
|---|---|---|
| (RN2261) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 |
| (RN2289) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 |

| INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|
| 15.000 | 1.000 | 0.000 | 1.000 |
| 15.000 | 1.000 | 3.000 | 1.000 |

MACH 0.381

REFERENCE INFORMATION

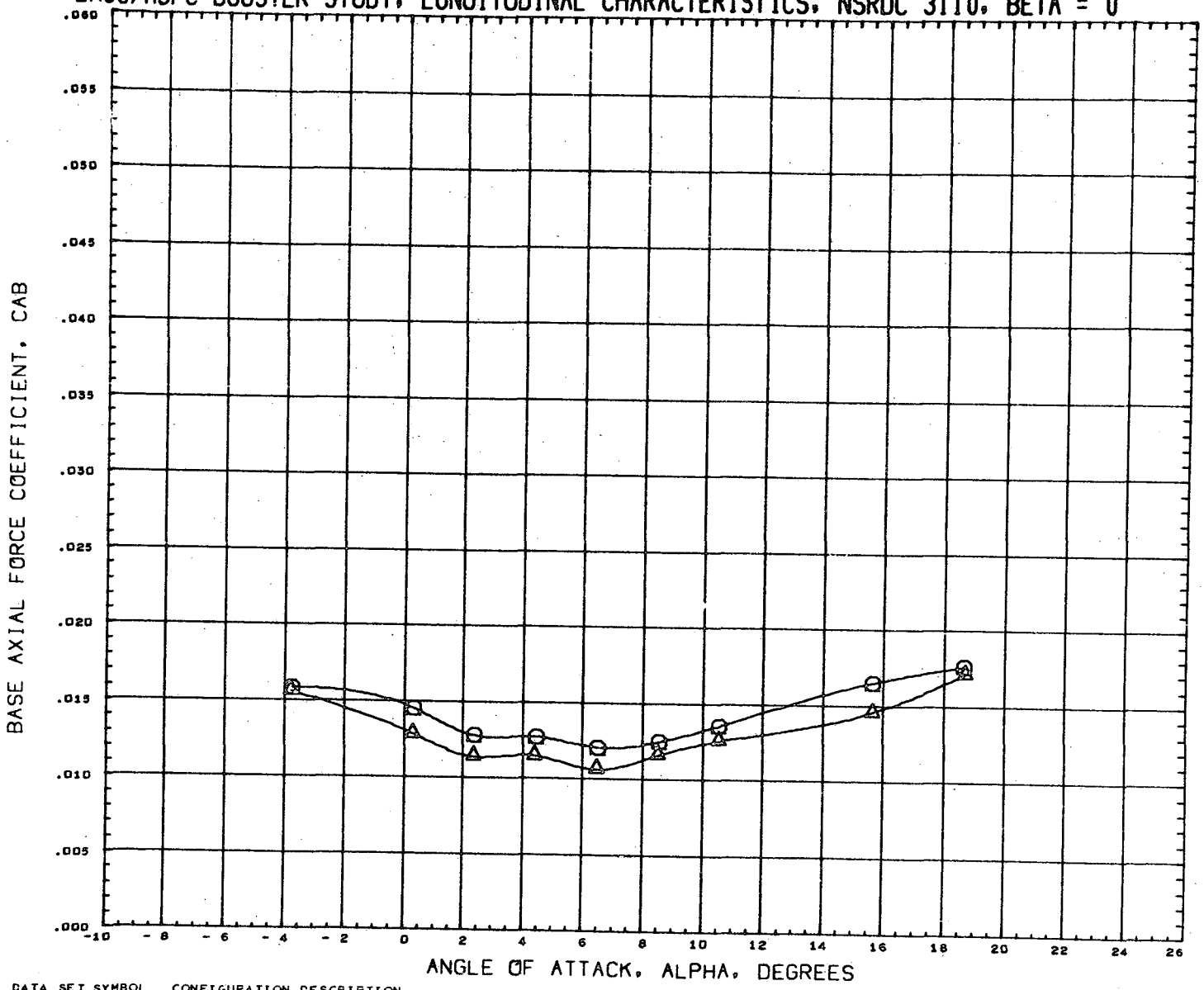
| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |




| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2261) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 1.000 | 0.000 | 1.000 |
| (RN2289) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 1.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

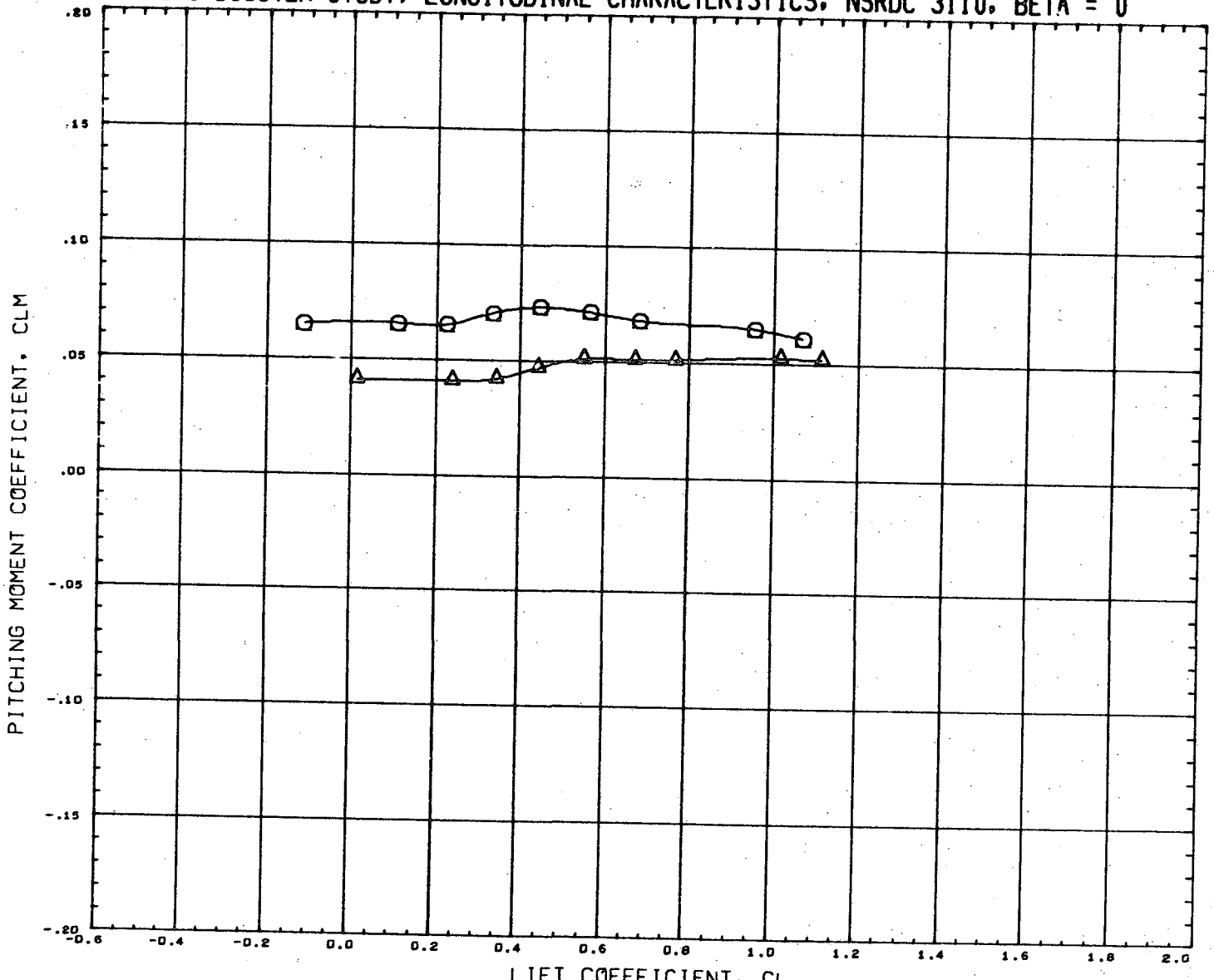



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDFOS | INCIDW | WNGFOS |
|---|---|---|---|---|---|---|
| (RN2261) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 1.000 | 0.000 | 1.000 |
| (RN2289) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 1.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0



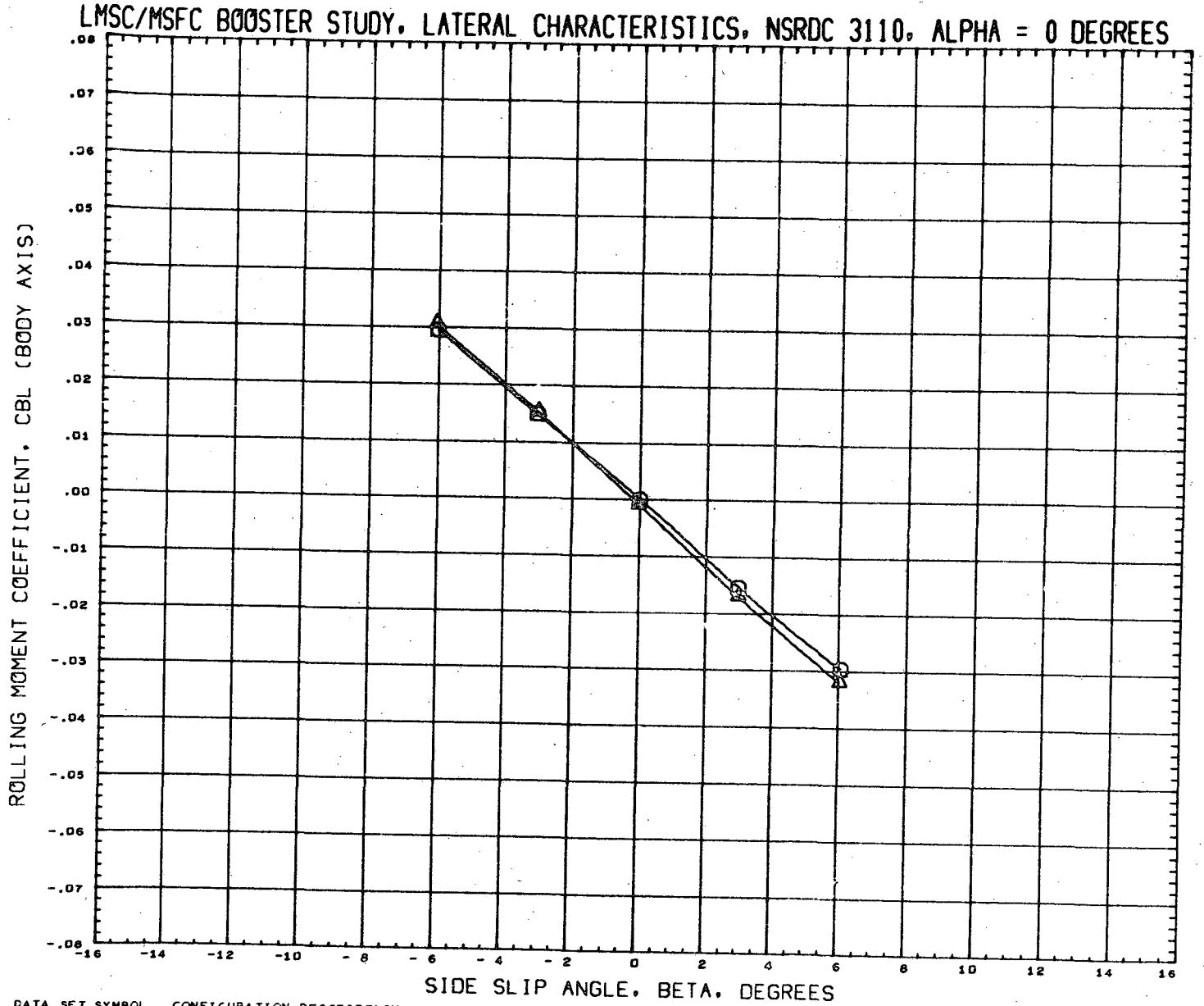

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION |
|---|---|---|
| (RN2261) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 |
| (RN2289) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 |

| INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|
| 15.000 | 1.000 | 0.000 | 1.000 |
| 15.000 | 1.000 | 3.000 | 1.000 |

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

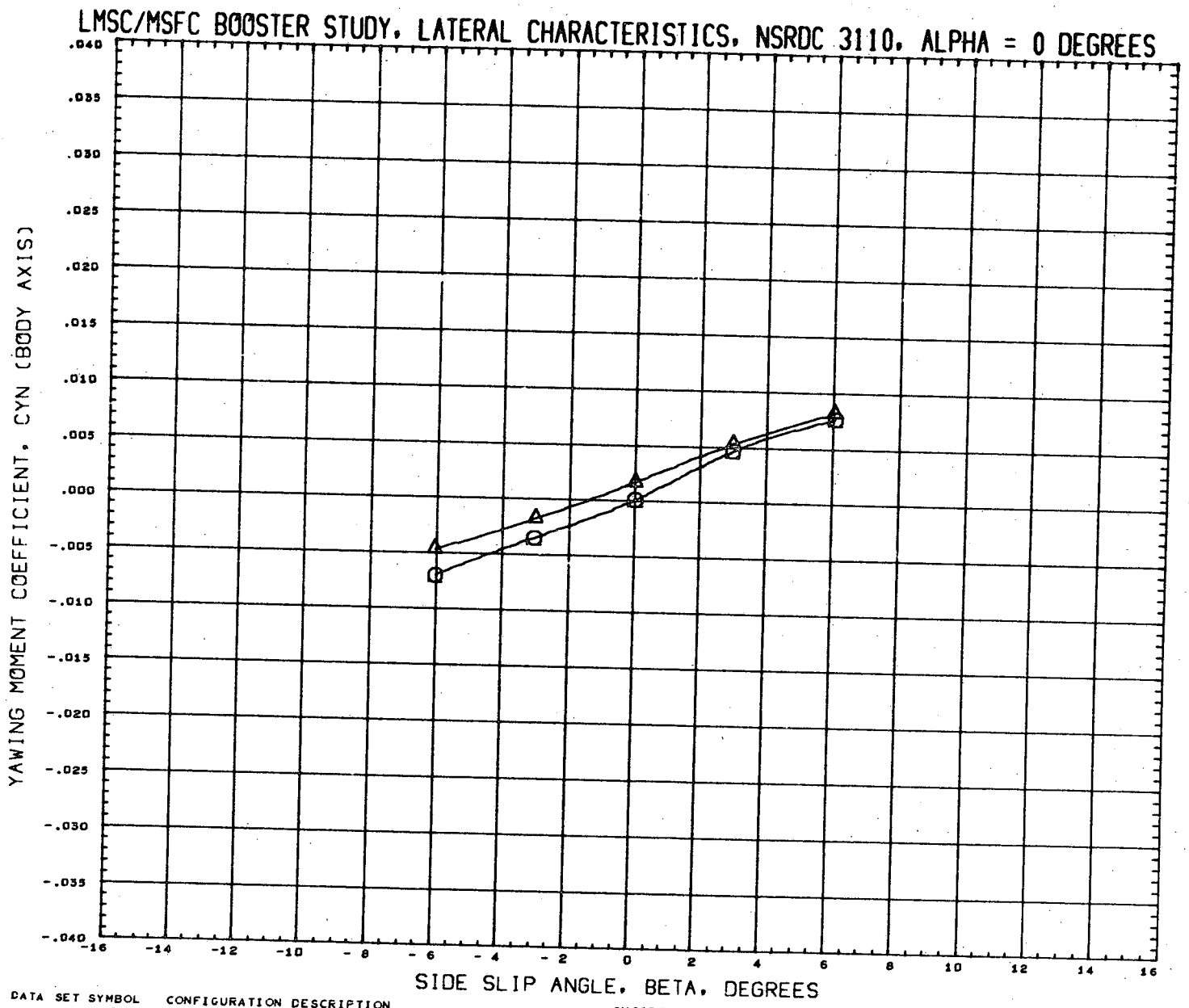
MACH 0.381




| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2262) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 1.000 | 0.000 | 1.000 |
| (RN2290) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 1.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

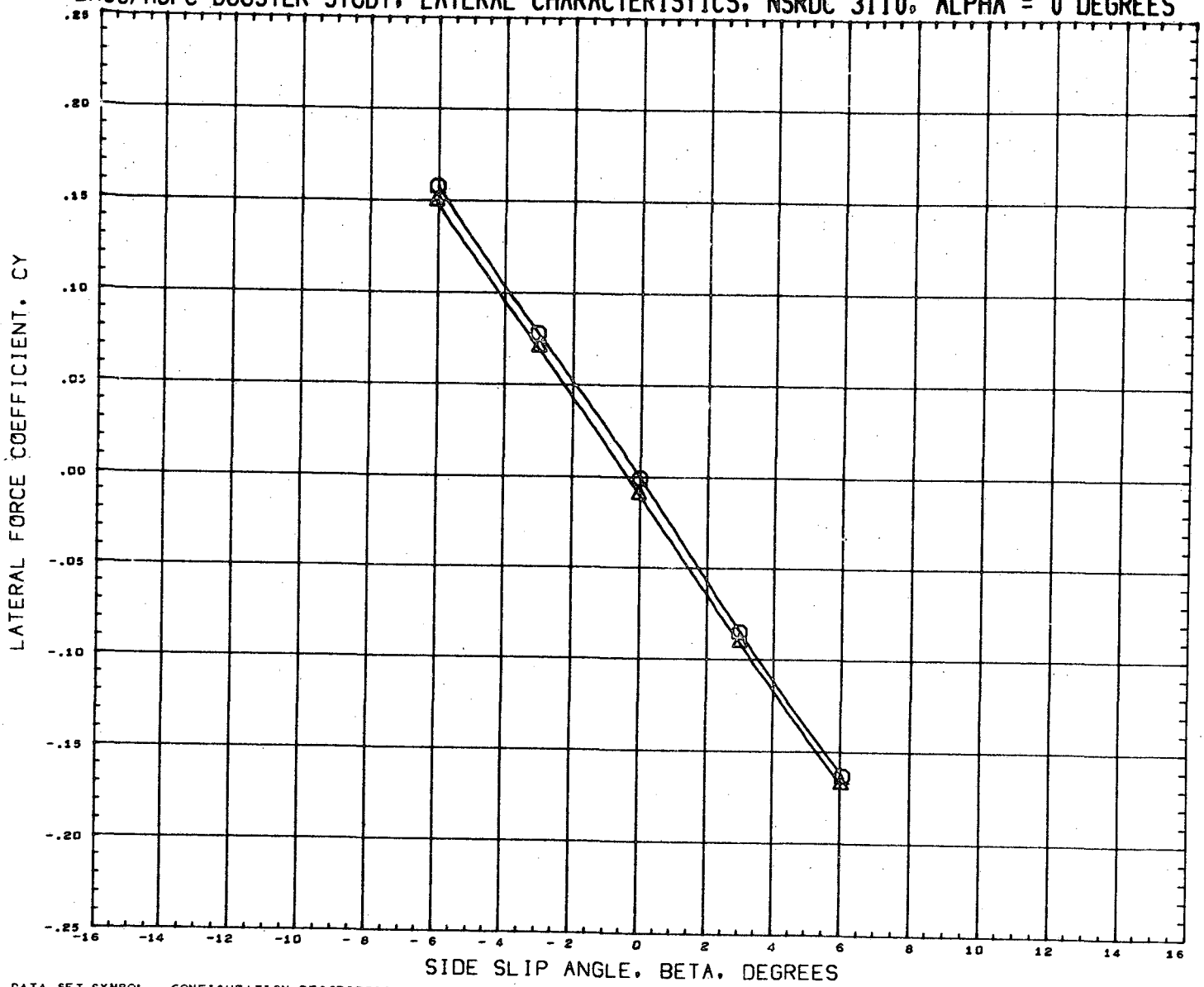



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2262) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 1.000 | 0.000 | 1.000 |
| (RN2290) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 1.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

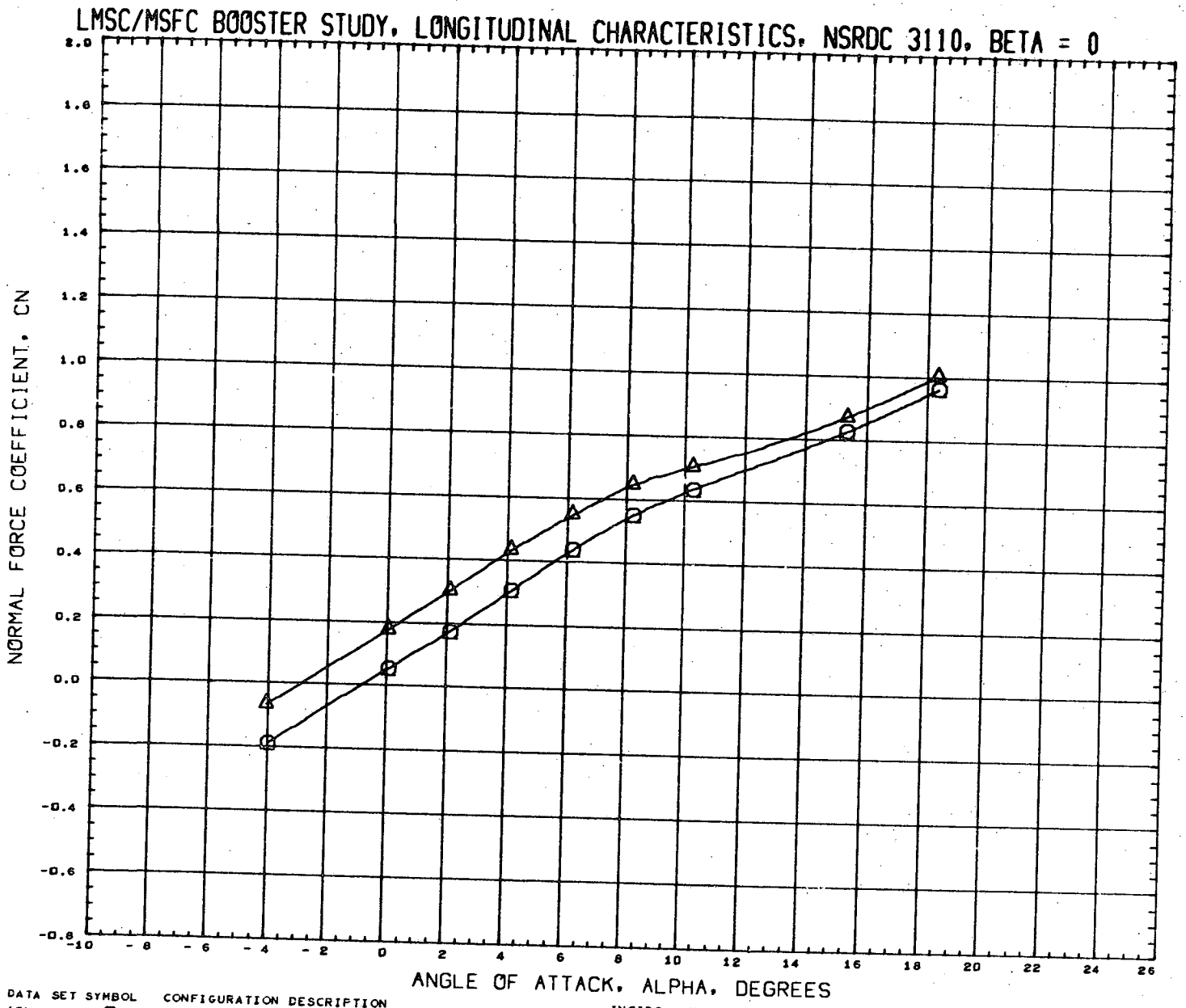



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION |
|---|---|---|
| (RN2262) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 |
| (RN2290) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 |

| INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|
| 15.000 | 1.000 | 0.000 | 1.000 |
| 15.000 | 1.000 | 3.000 | 1.000 |

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

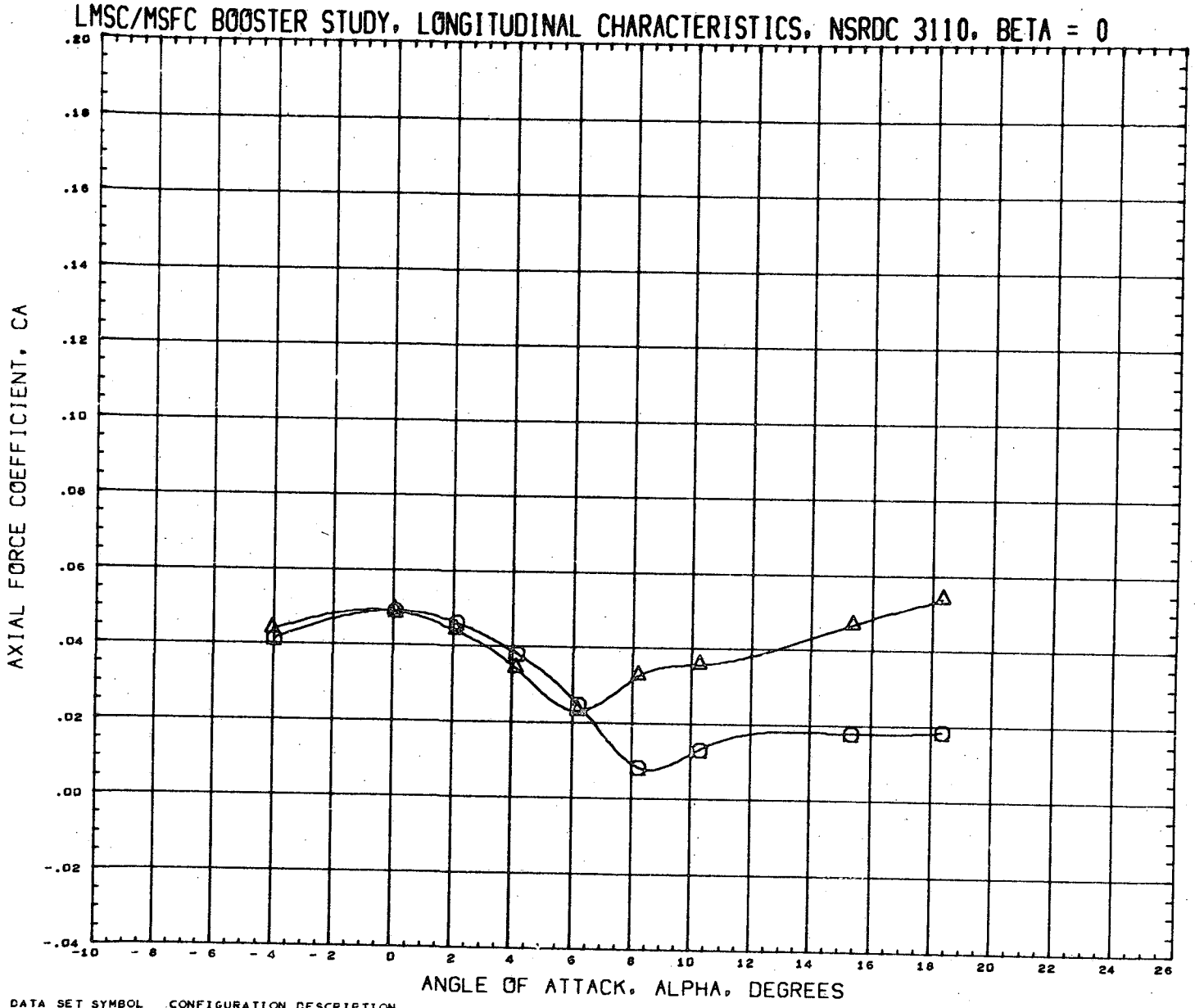
MACH 0.361




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2265) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 2.000 | 0.000 | 1.000 |
| (RN2293) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 2.000 | 3.000 | 1.000 |

MACH 0.381

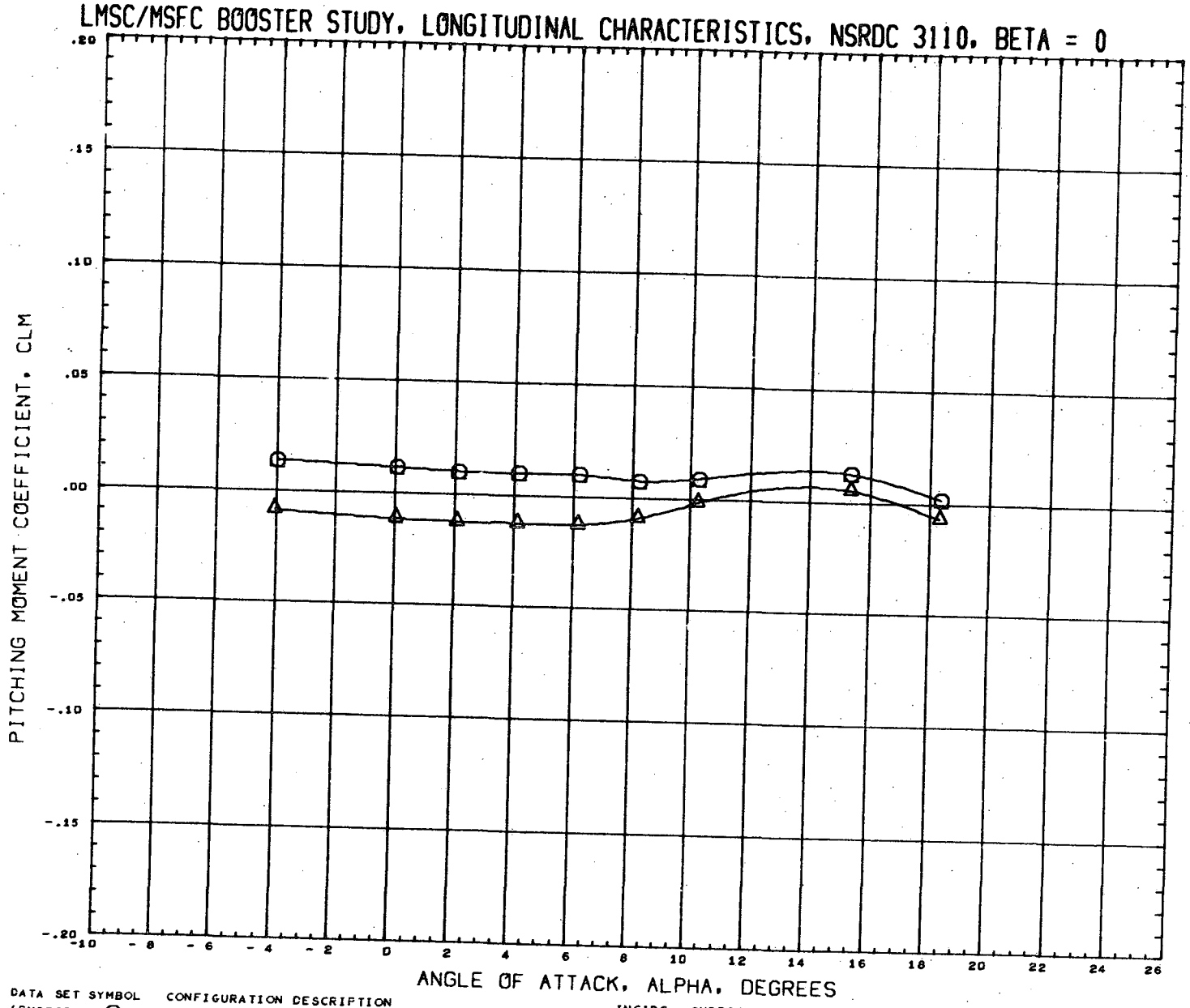
| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2265) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 2.000 | 0.000 | 1.000 |
| (RN2293) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 2.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

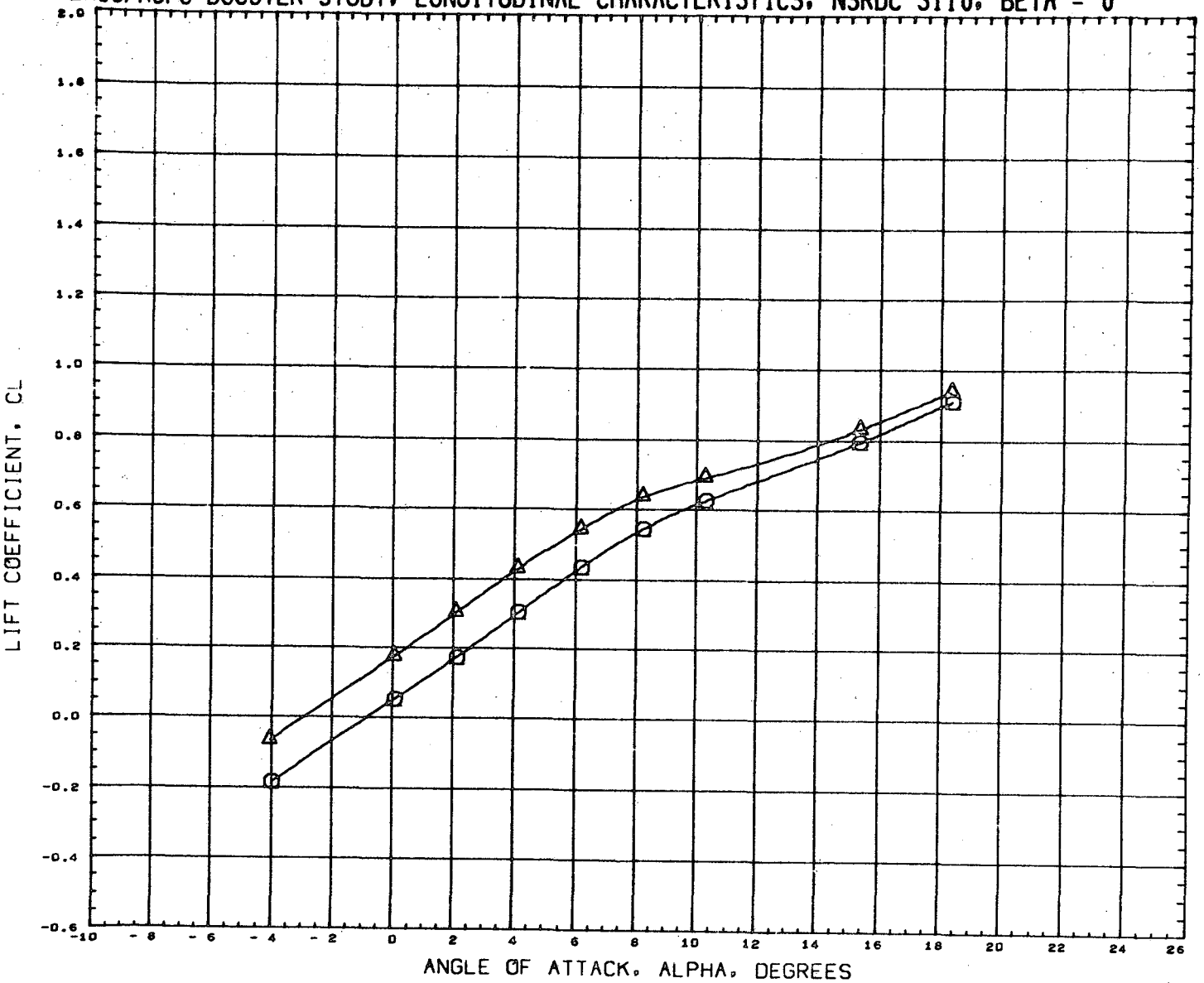



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2265) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 2.000 | 0.000 | 1.000 |
| (RN2293) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 2.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

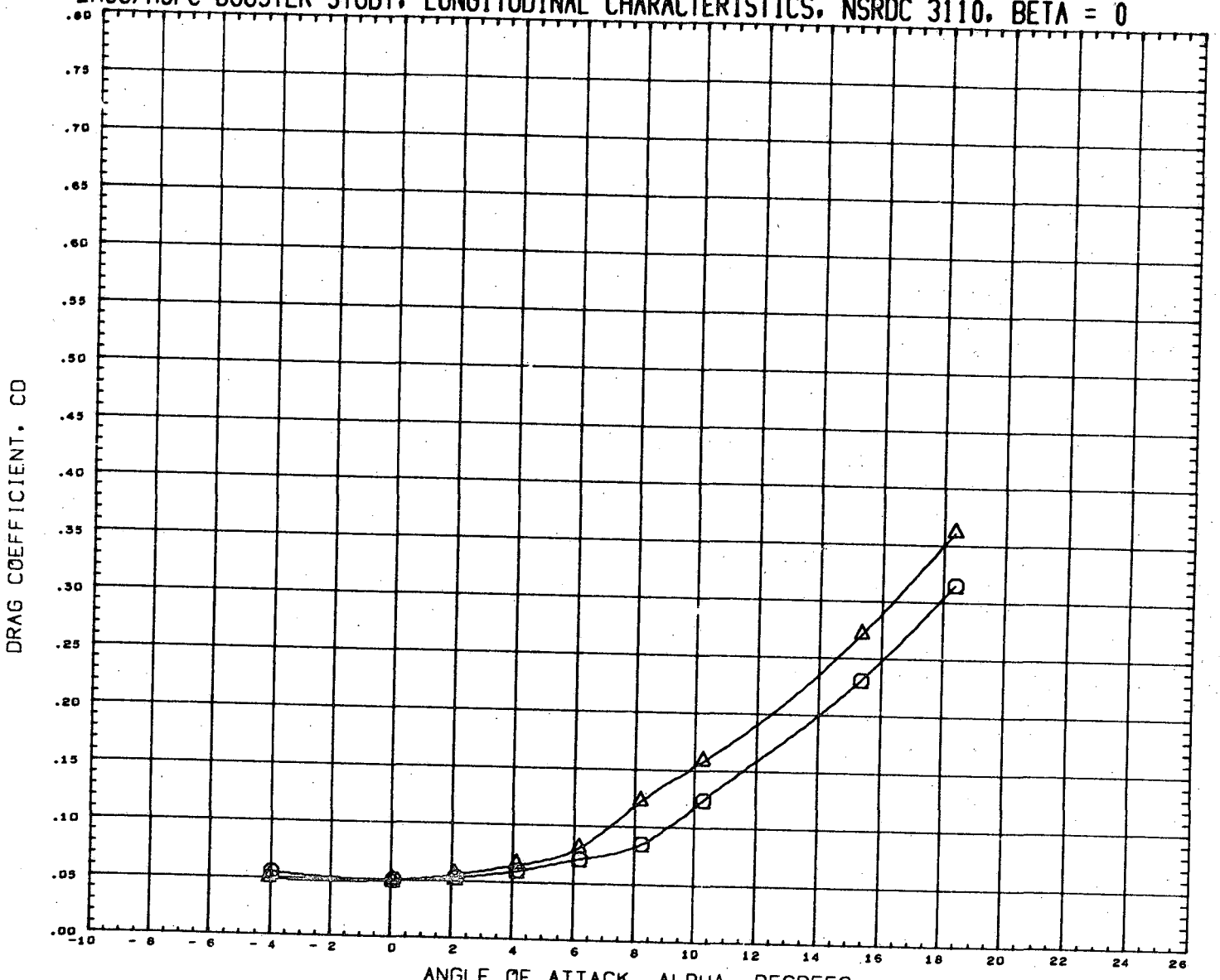



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2265) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 2.000 | 0.000 | 1.000 |
| (RN2293) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 2.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY. LONGITUDINAL CHARACTERISTICS. NSRDC 3110. BETA = 0

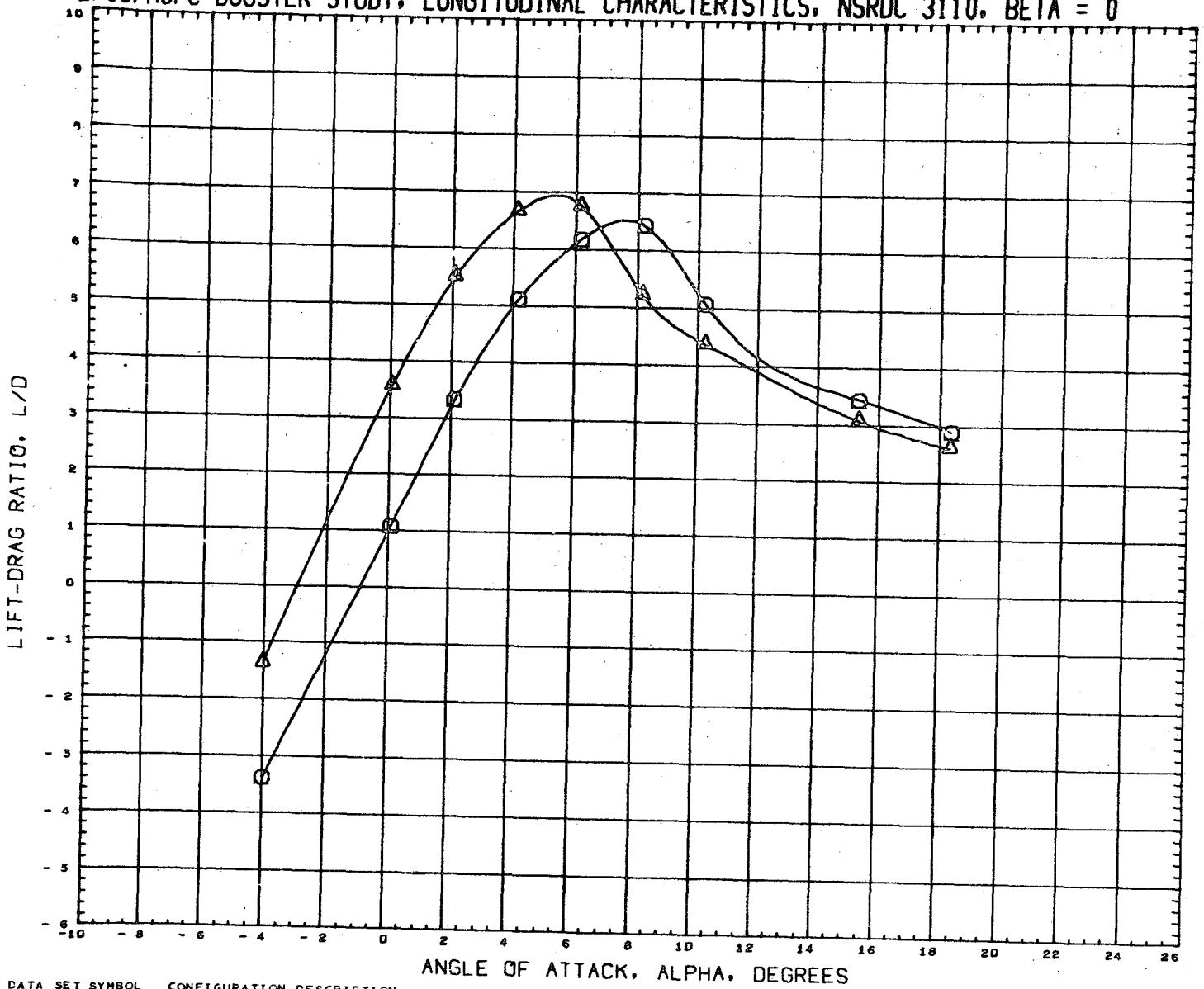



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2265) ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 2.000 | 0.000 | 1.000 |
| (RN2293) △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 2.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0



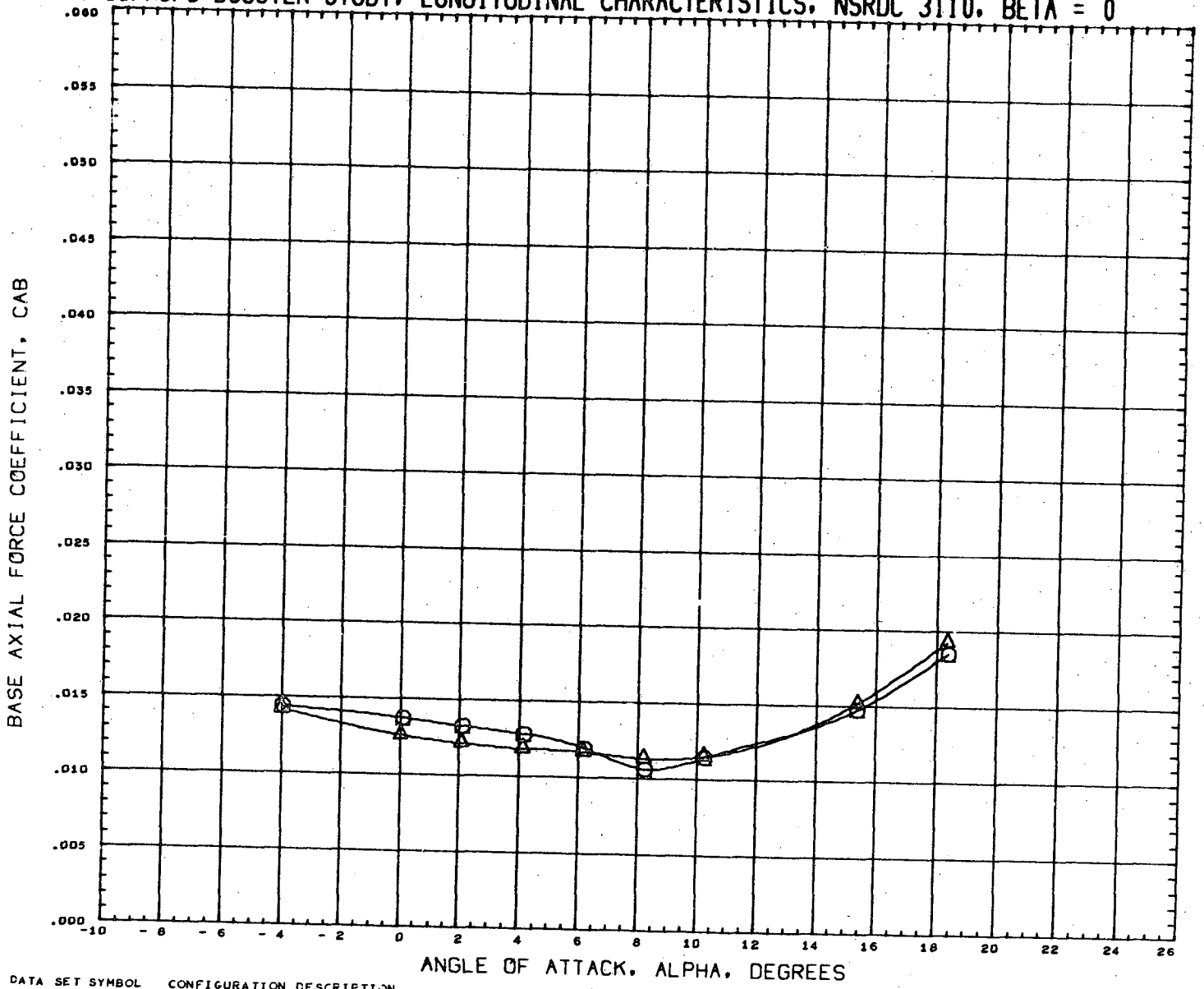

| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2265) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 2.000 | 0.000 | 1.000 |
| (RN2293) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 2.000 | 3.000 | 1.000 |

MACH 0.381

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

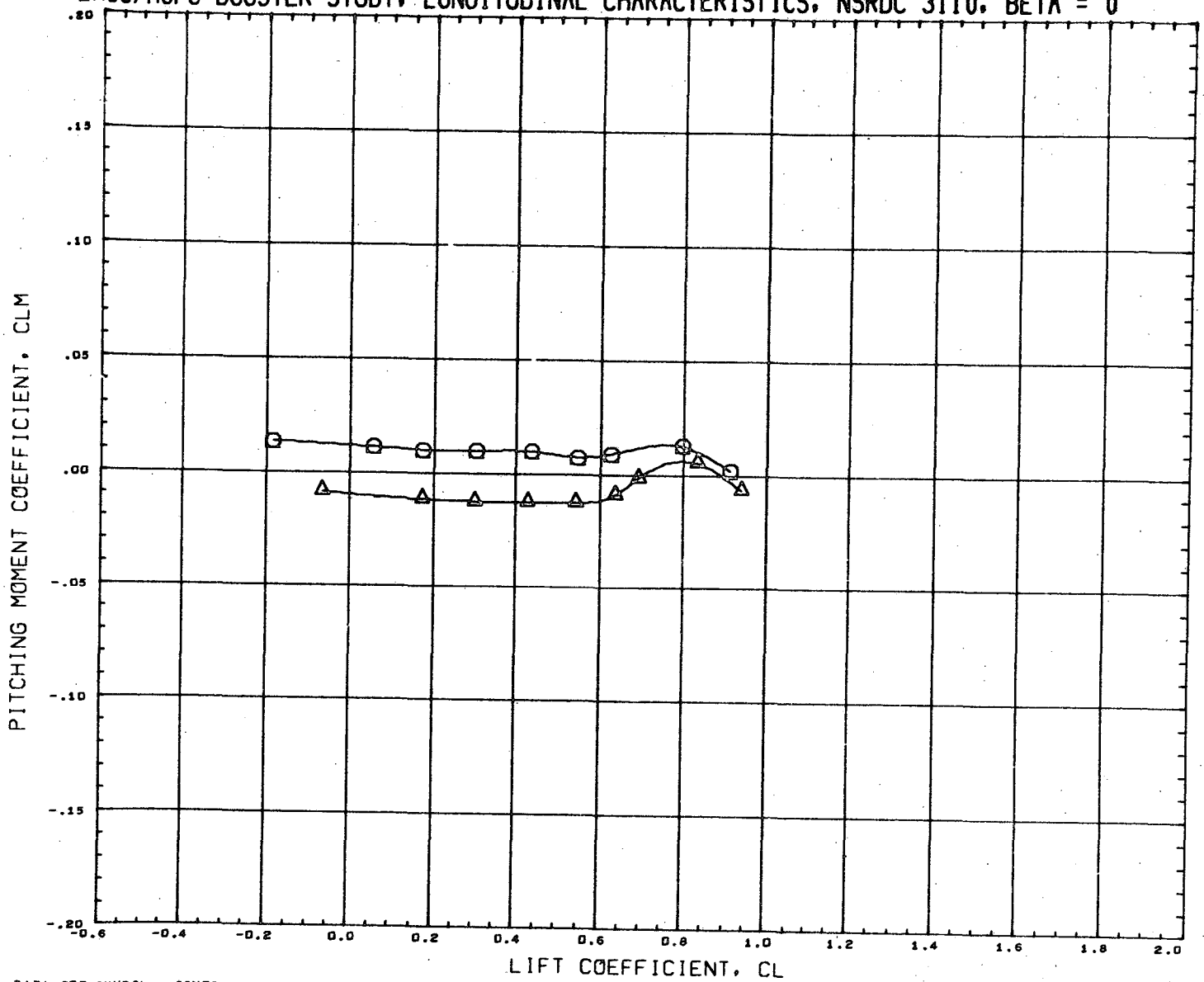



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2265) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 2.000 | 0.000 | 1.000 |
| (RN2293) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 2.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

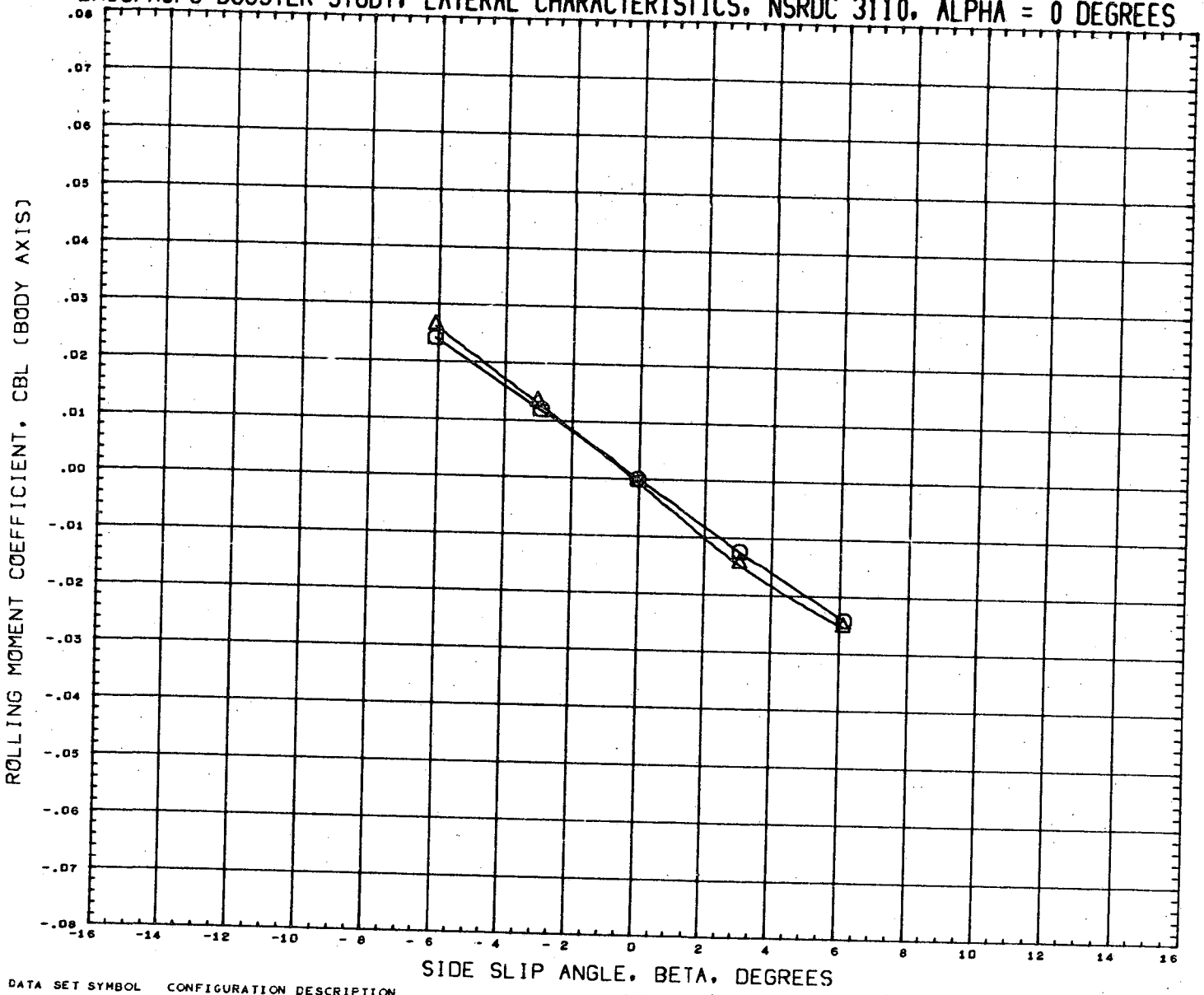



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2265) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 2.000 | 0.000 | 1.000 |
| (RN2293) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 2.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

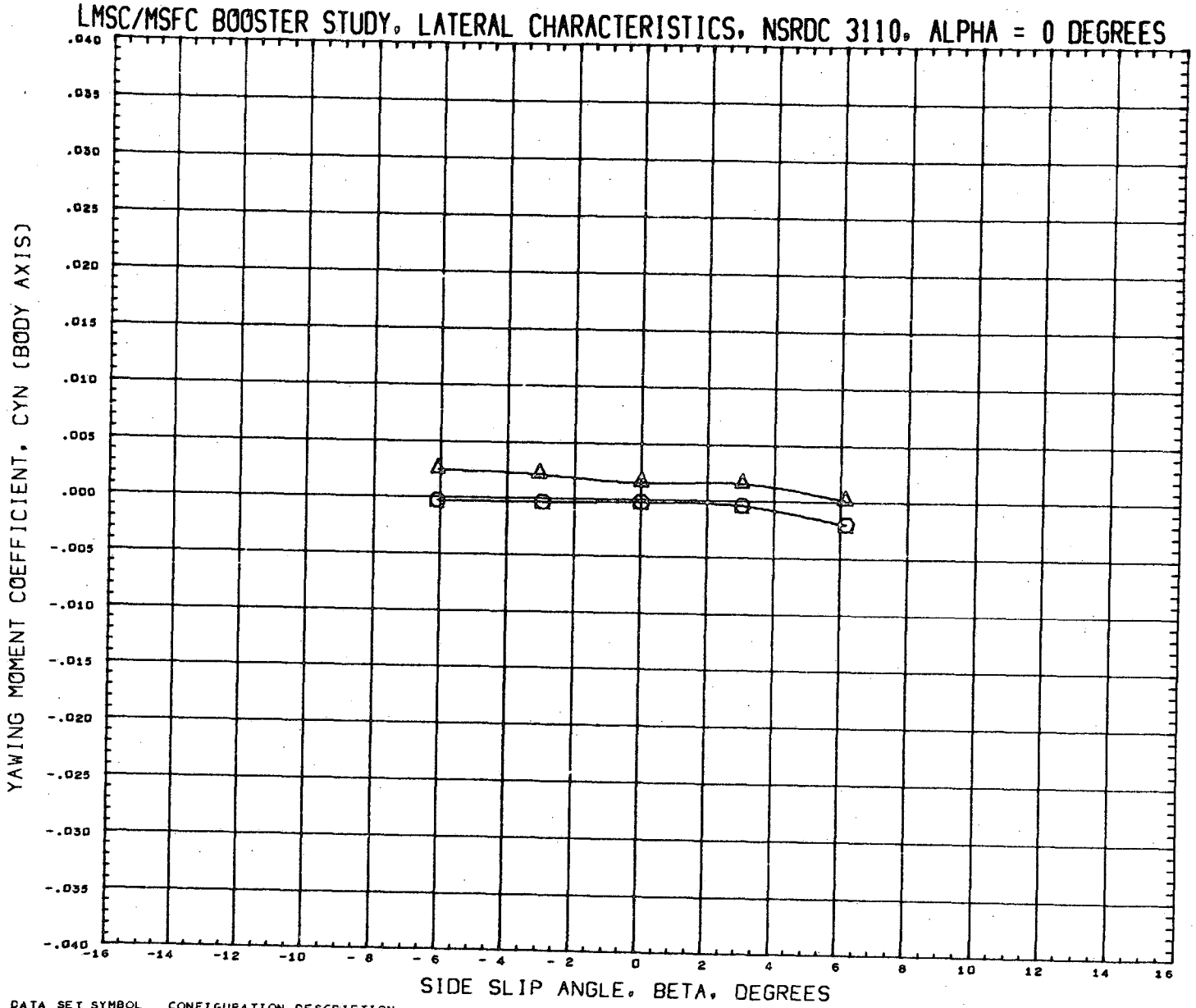
LMSC/MSFC BOOSTER STUDY. LATERAL CHARACTERISTICS. NSRDC 3110. ALPHA = 0 DEGREES




| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2266) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 2.000 | 0.000 | 1.000 |
| (RN2294) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 2.000 | 3.000 | 1.000 |

MACH 0.381

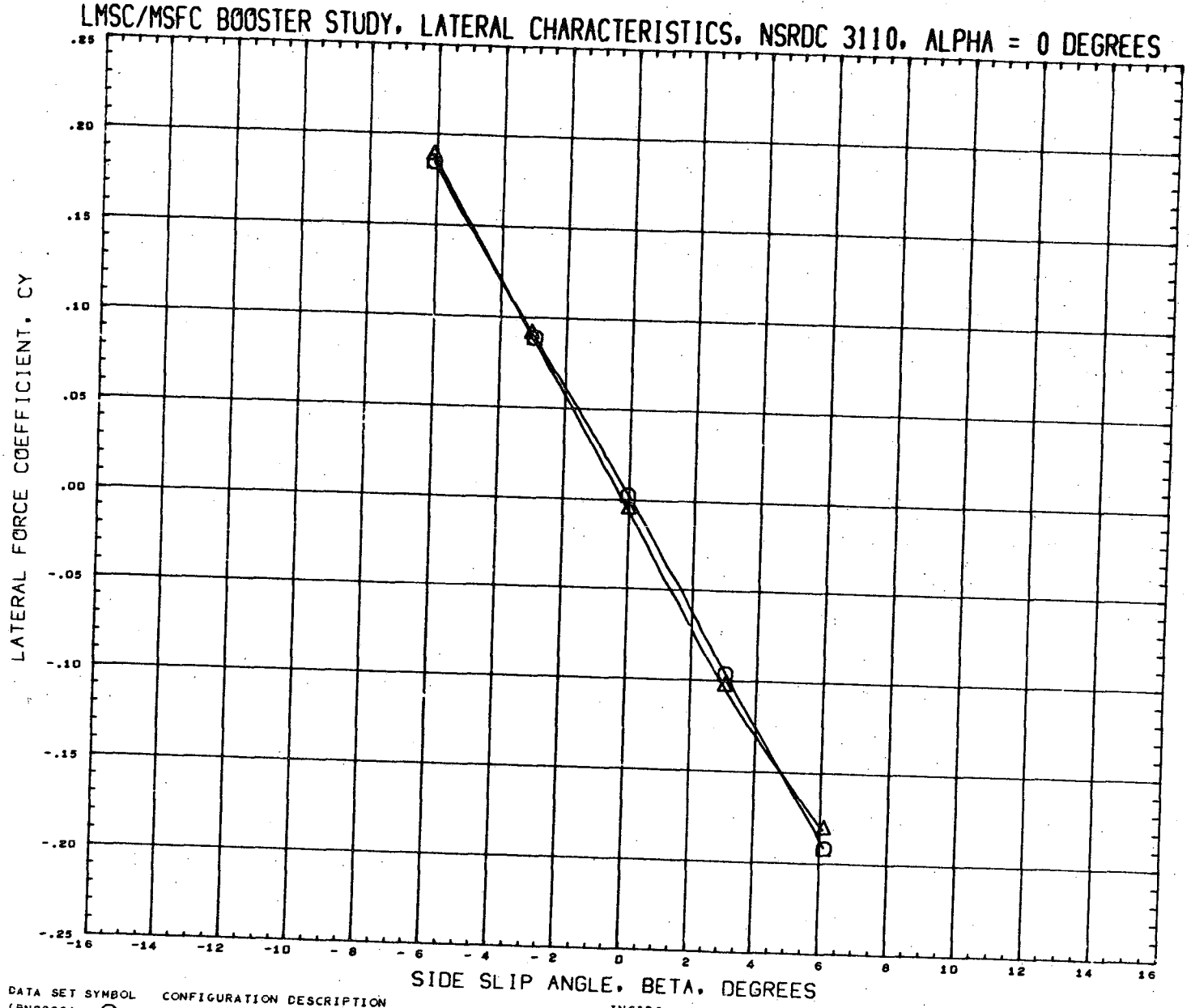
| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |




| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2266) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 2.000 | 0.000 | 1.000 |
| (RN2294) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 2.000 | 3.000 | 1.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION |
|---|---|---|
| (RN2266) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 |
| (RN2294) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 |

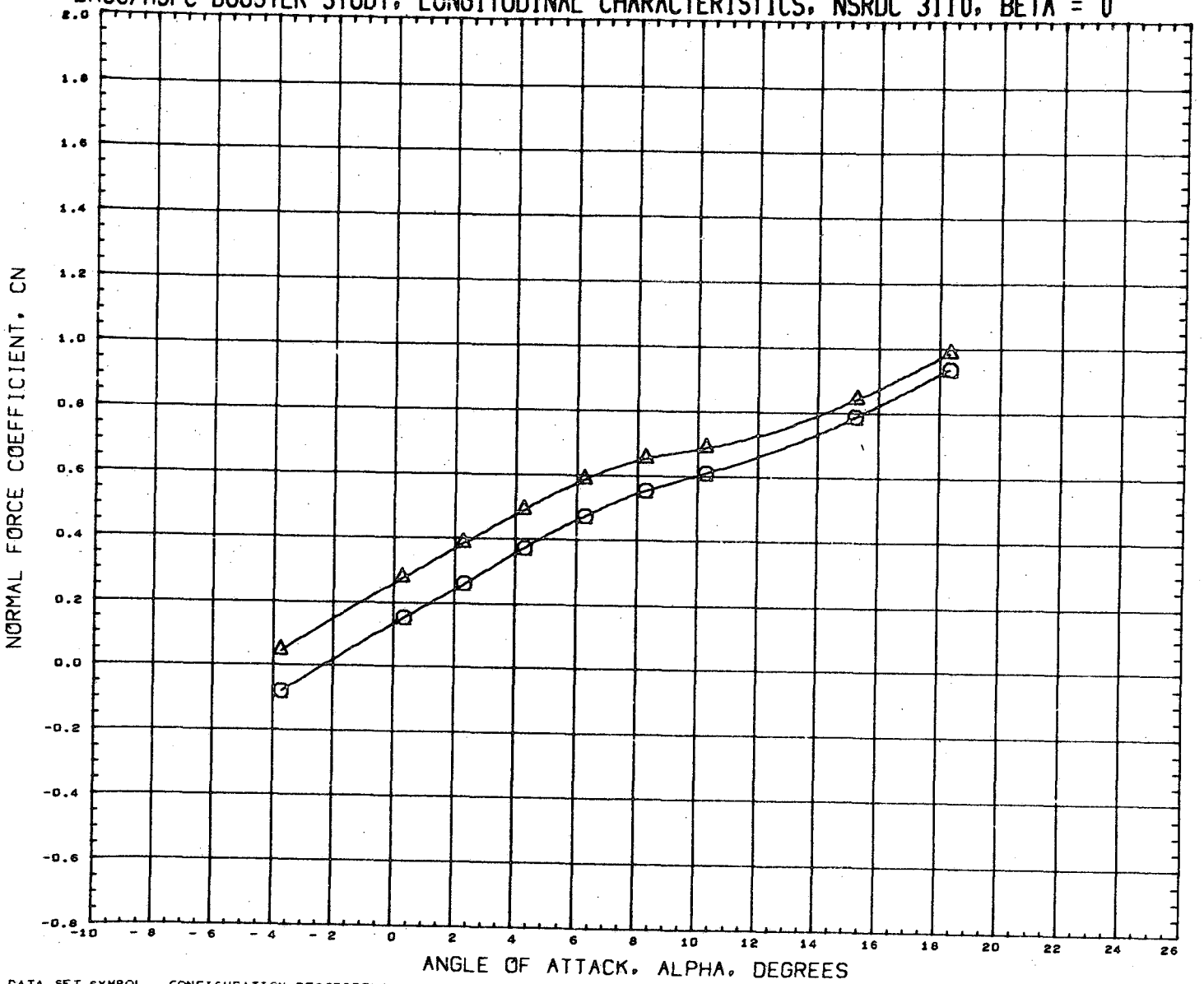
| INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|
| 3.000 | 2.000 | 0.000 | 1.000 |
| 3.000 | 2.000 | 3.000 | 1.000 |

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

MACH 0.381

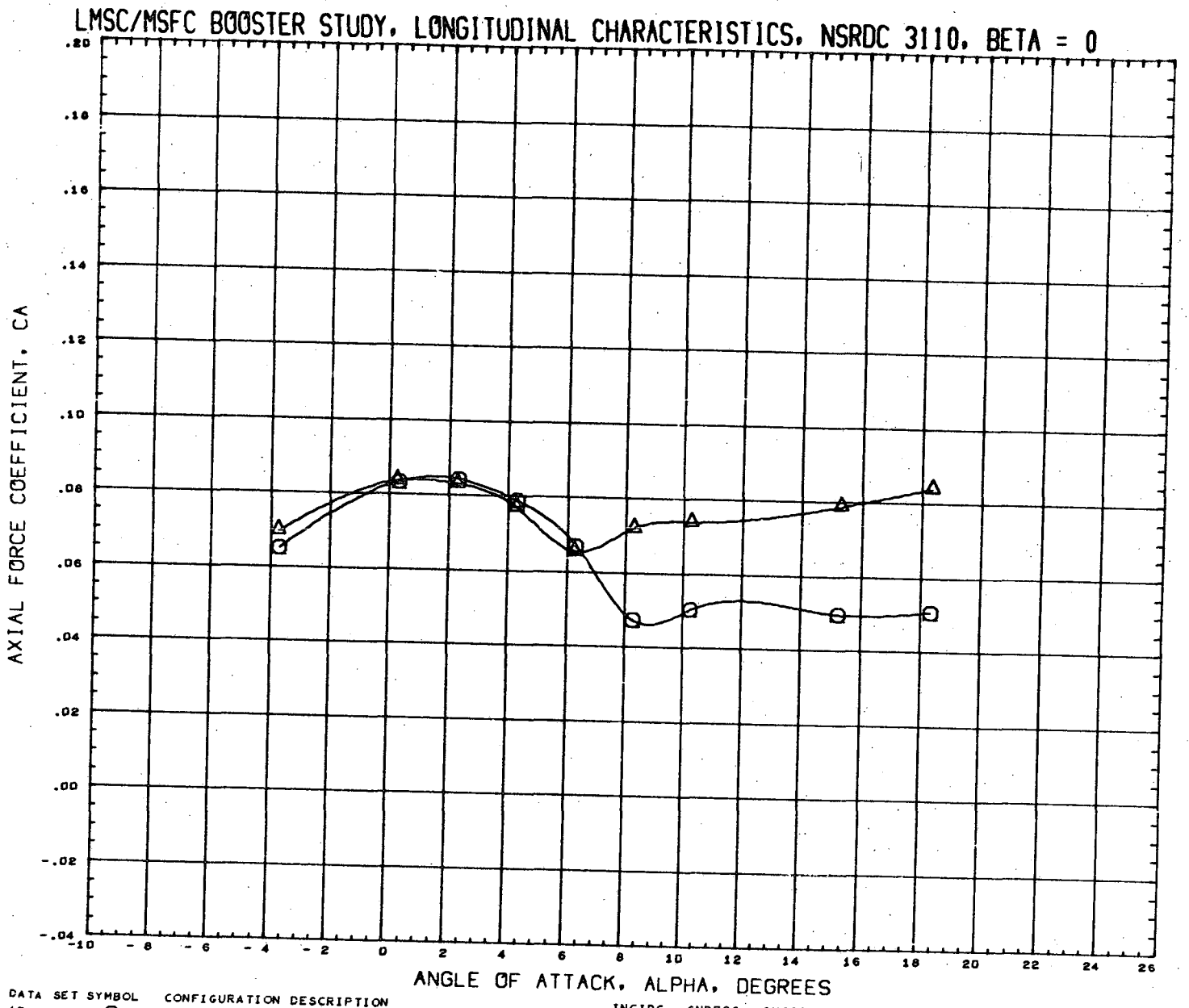
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2269) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 2.000 | 0.000 | 1.000 |
| (RN2297) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 2.000 | 3.000 | 1.000 |

MACH 0.379

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

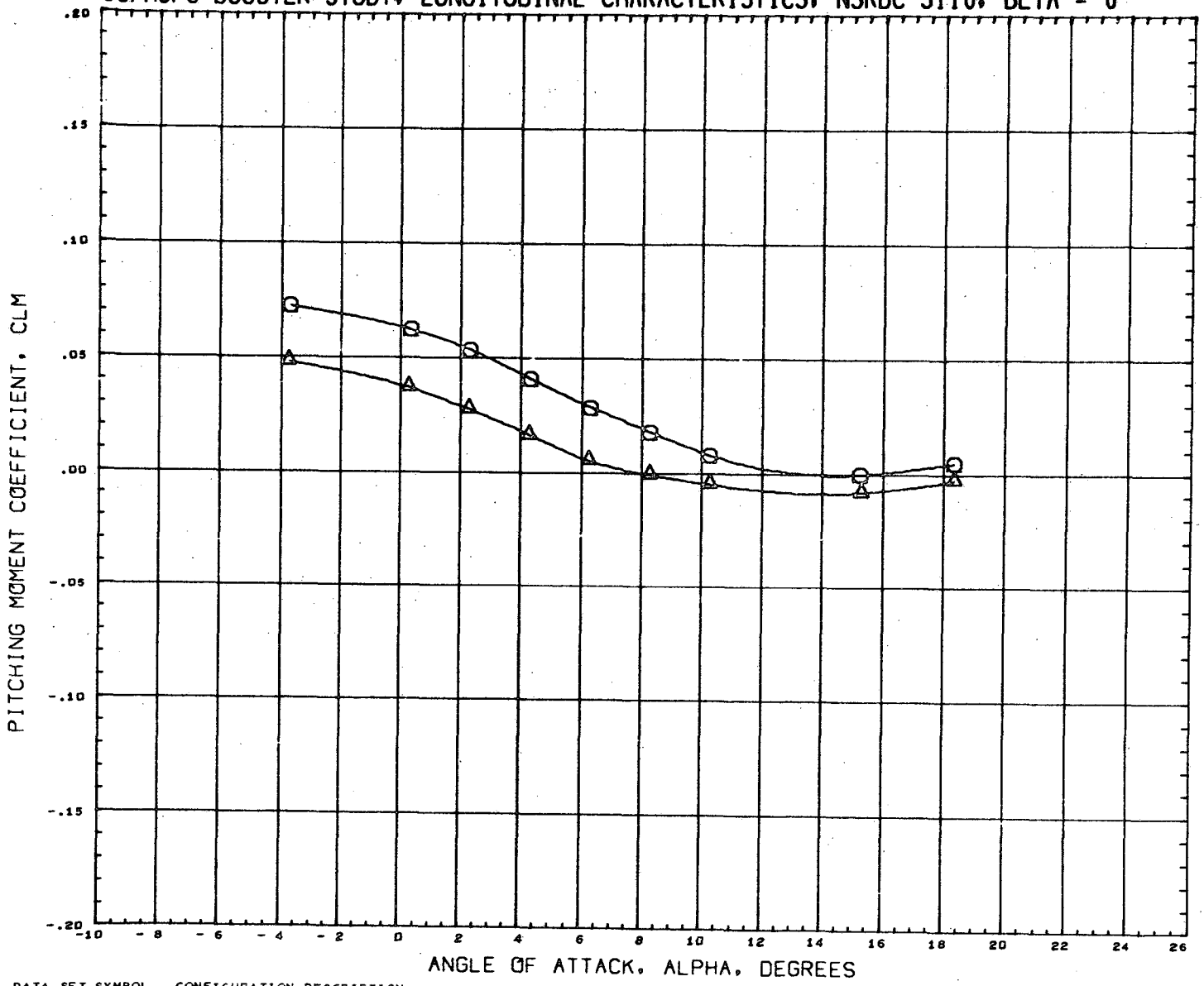



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2269) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 2.000 | 0.000 | 1.000 |
| (RN2297) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 2.000 | 3.000 | 1.000 |

MACH 0.379

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

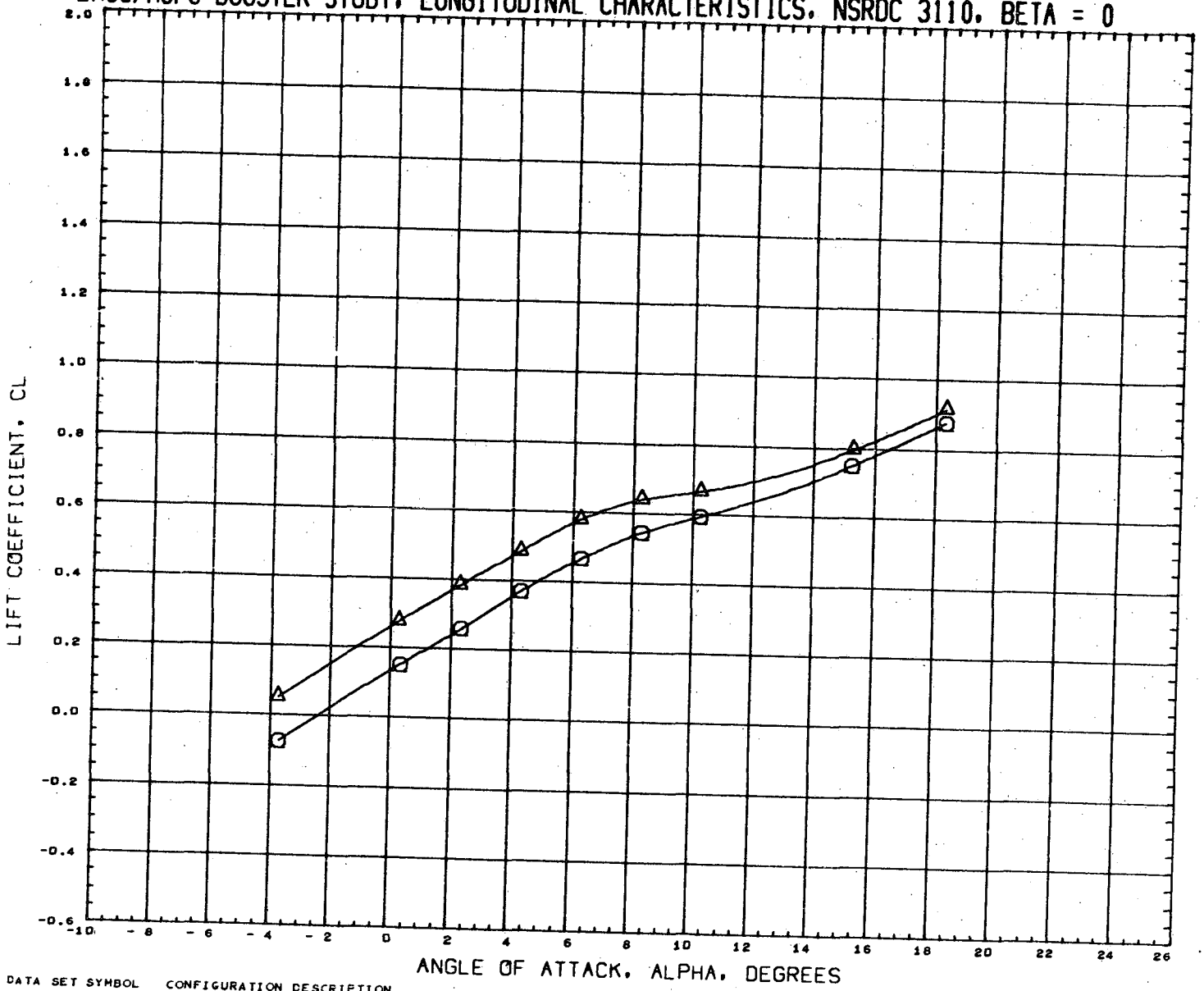



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2269) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 2.000 | 0.000 | 1.000 |
| (RN2297) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 2.000 | 3.000 | 1.000 |

MACH 0.379

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0



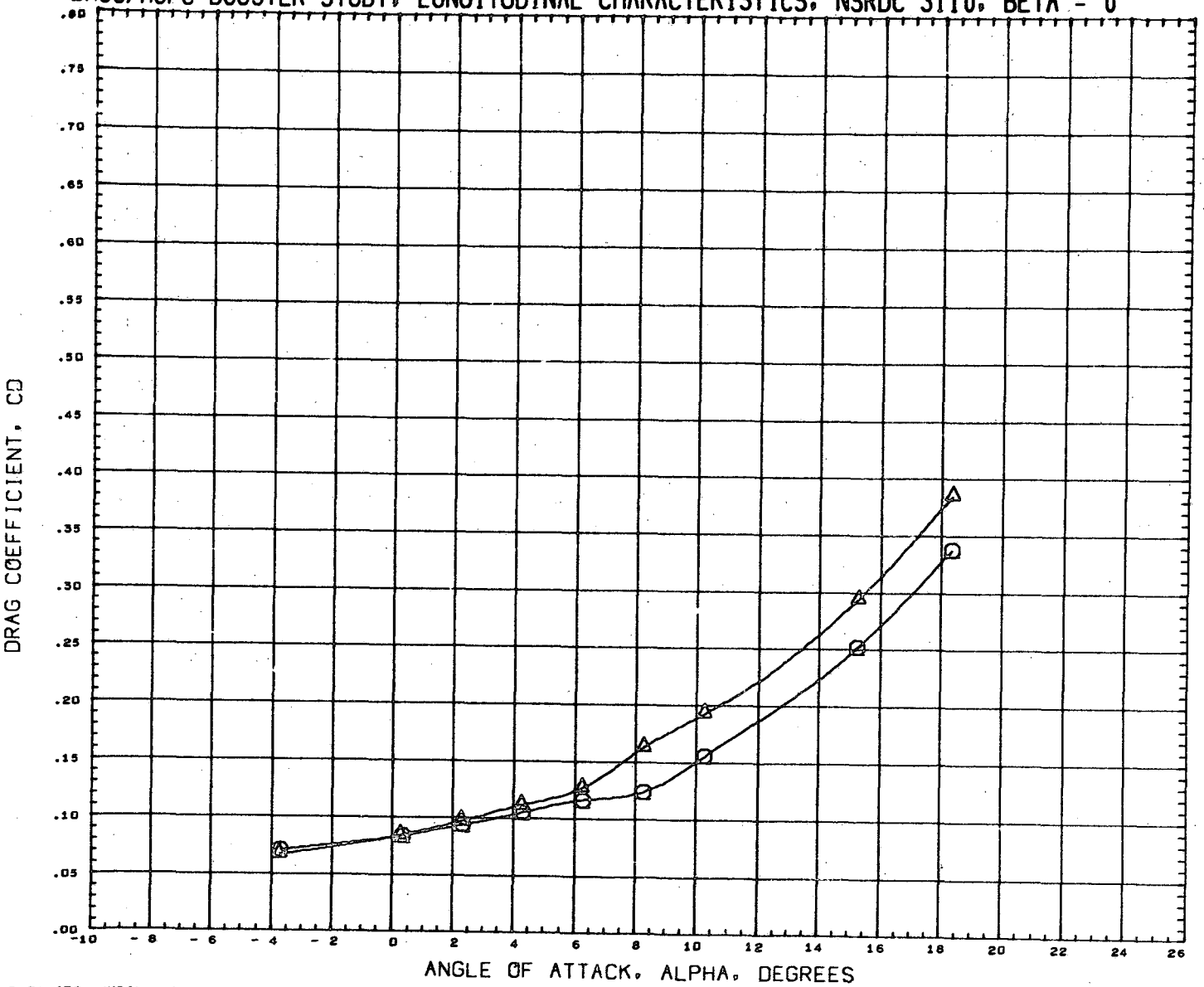

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2269) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 2.000 | 0.000 | 1.000 |
| (RN2297) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 2.000 | 3.000 | 1.000 |

MACH 0.379

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

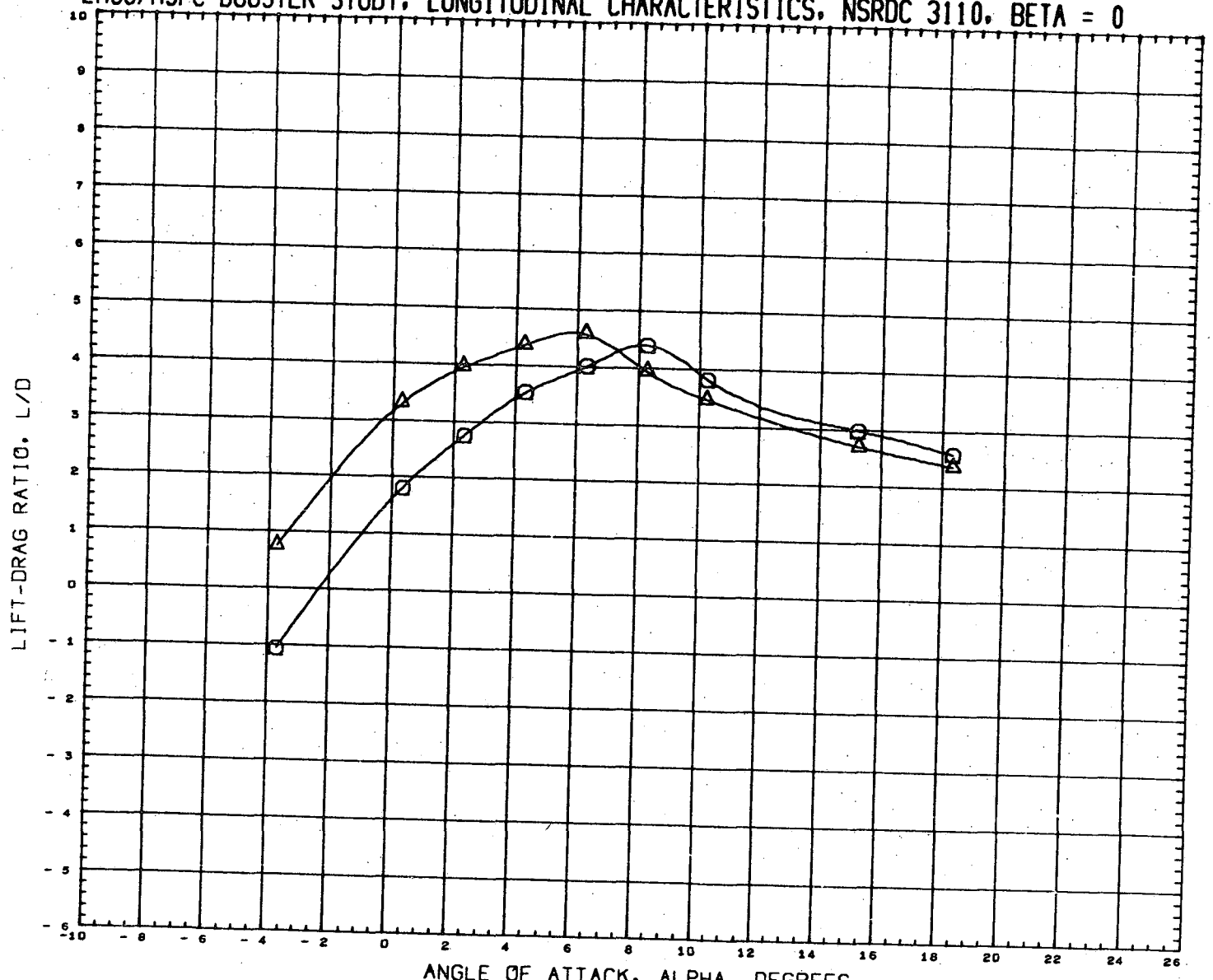



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2269) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 2.000 | 0.000 | 1.000 |
| (RN2297) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 2.000 | 3.000 | 1.000 |

MACH 0.379

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

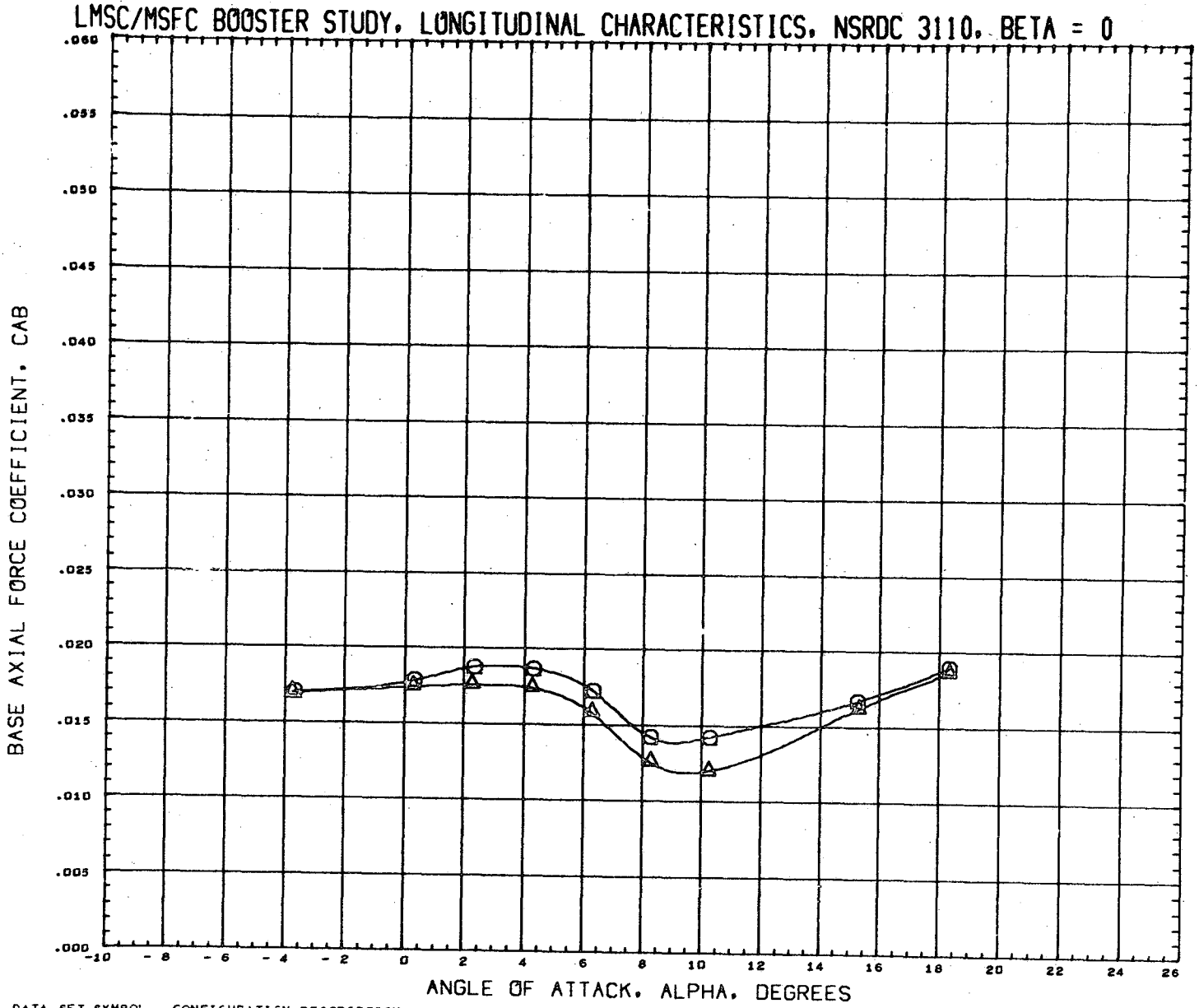
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2269) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 2.000 | 0.000 | 1.000 |
| (RN2297) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 2.000 | 3.000 | 1.000 |

MACH 0.379

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |




| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2269) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 2.000 | 0.000 | 1.000 |
| (RN2297) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 2.000 | 3.000 | 1.000 |

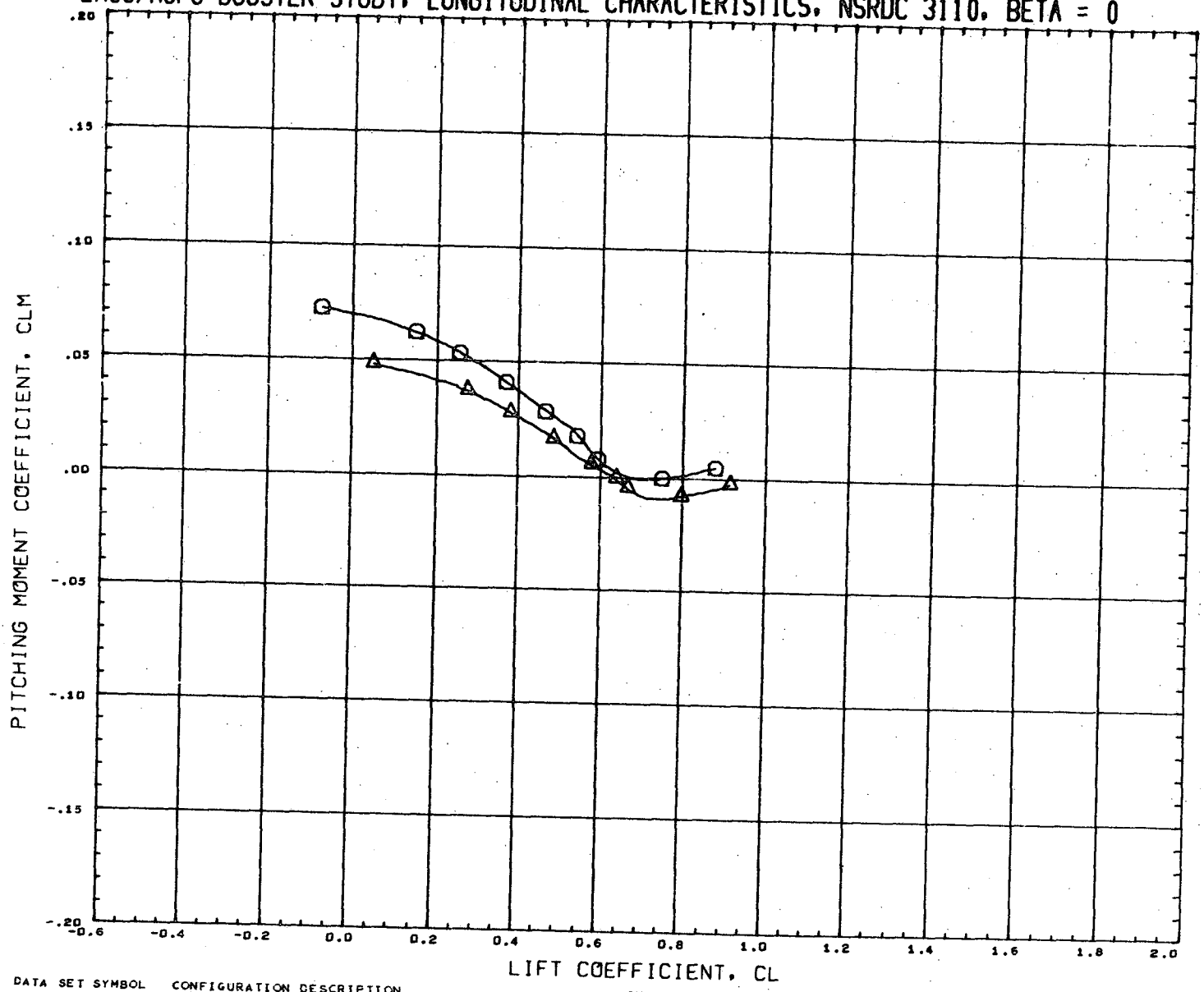
MACH 0.379

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |



9Q

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION |
|---|---|---|
| (RN2269) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 |
| (RN2297) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 |

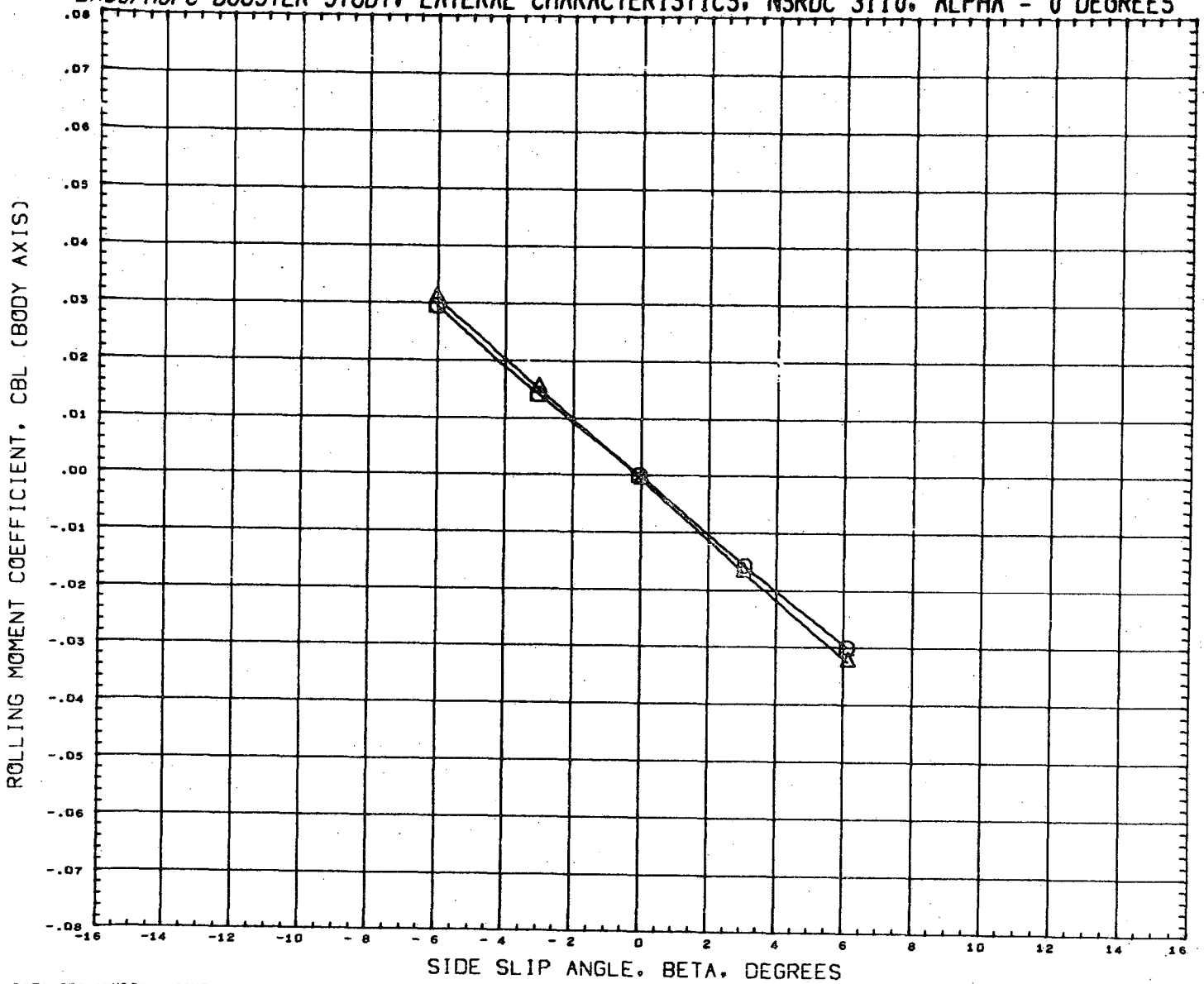
| INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|
| 15.000 | 2.000 | 0.000 | 1.000 |
| 15.000 | 2.000 | 3.000 | 1.000 |

MACH 0.379

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

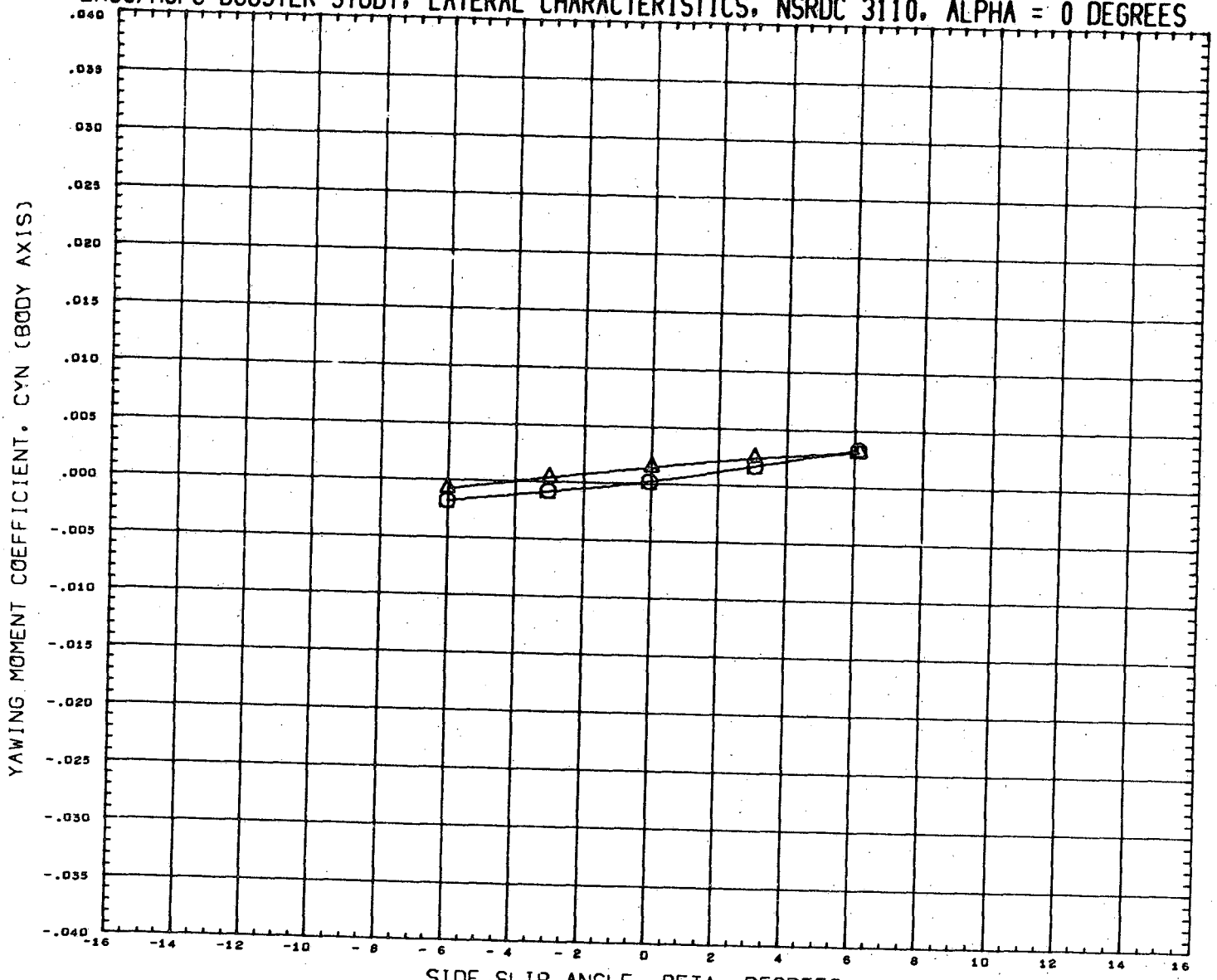



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDFOS | INCIDW | WNGFOS |
|---|---|---|---|---|---|---|
| (RN2270) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 2.000 | 0.000 | 1.000 |
| (RN2298) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 2.000 | 3.000 | 1.000 |

MACH 0.379

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES




| DATA SET SYMBOL | CONFIGURATION DESCRIPTION |
|---|---|
| (RN2270) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 |
| (RN2298) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 |

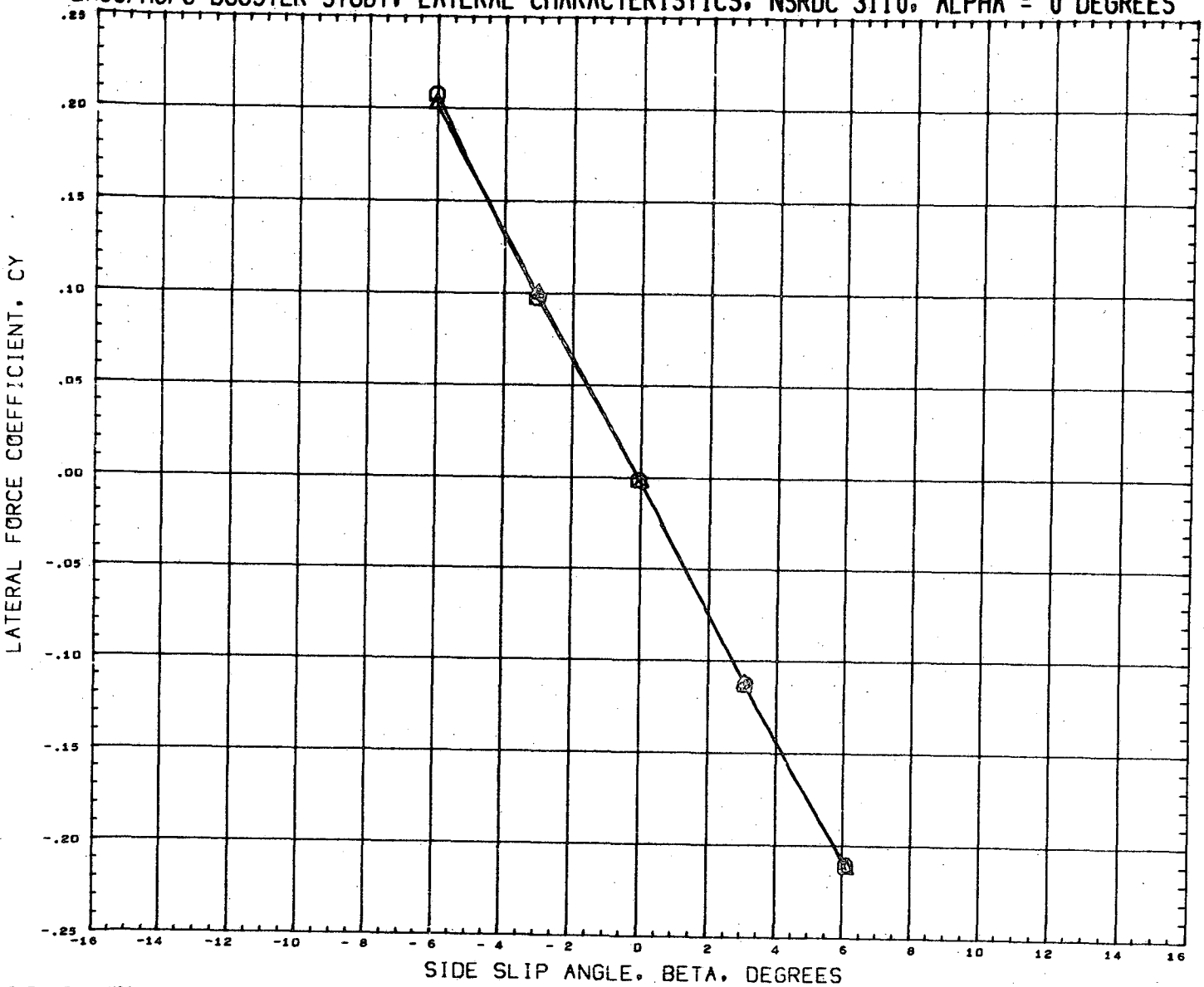
| INCIDC | CNDFOS | INCIDW | WNGFOS |
|---|---|---|---|
| 15.000 | 2.000 | 0.000 | 1.000 |
| 15.000 | 2.000 | 3.000 | 1.000 |

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

MACH 0.379

# LMSC/MSFC BOOSTER STUDY. LATERAL CHARACTERISTICS. NSRDC 3110. ALPHA = 0 DEGREES



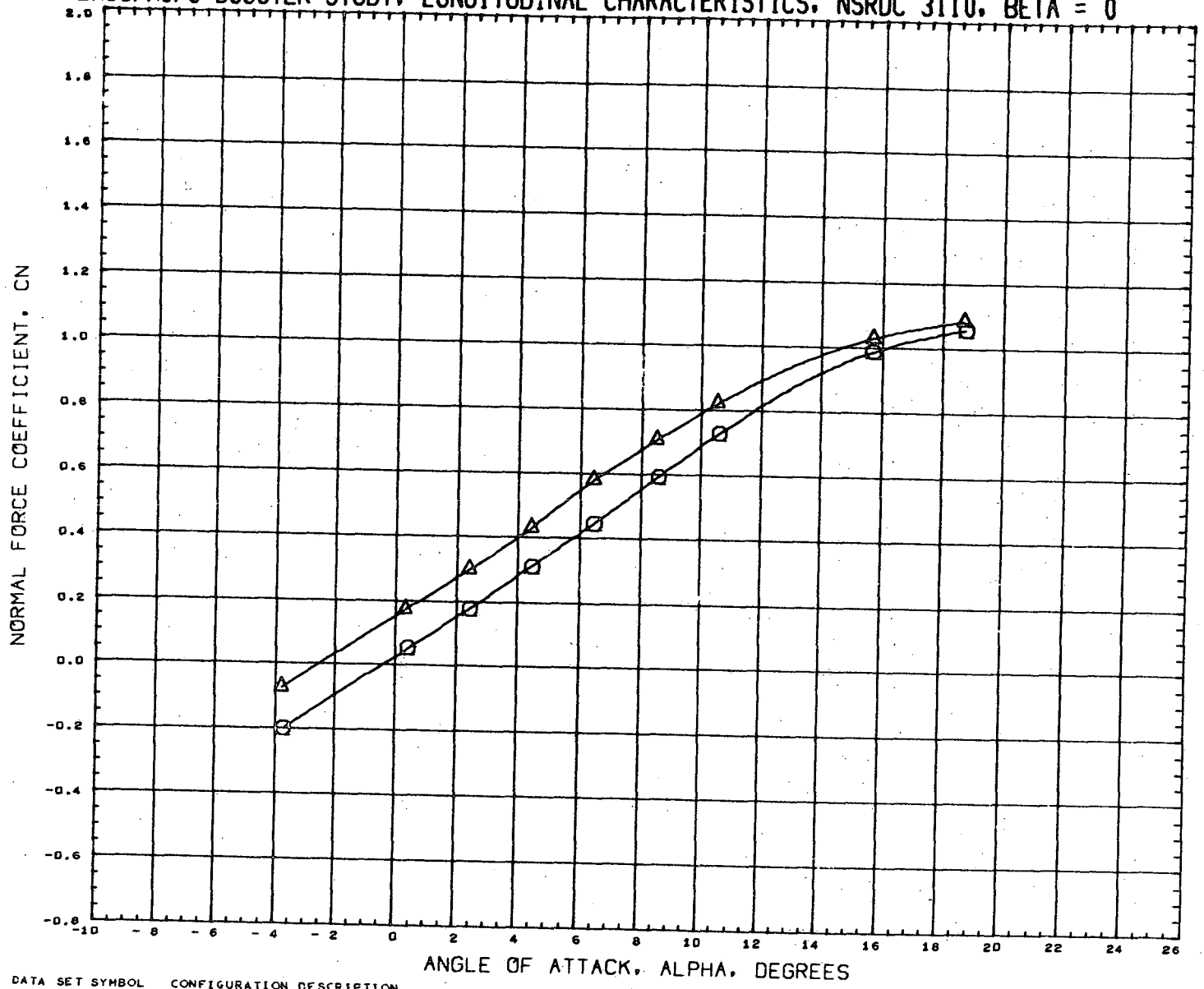

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGFOS |
|---|---|---|---|---|---|---|
| (RN2270) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 2.000 | 0.000 | 1.000 |
| (RN2298) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 2.000 | 3.000 | 1.000 |

MACH 0.379

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

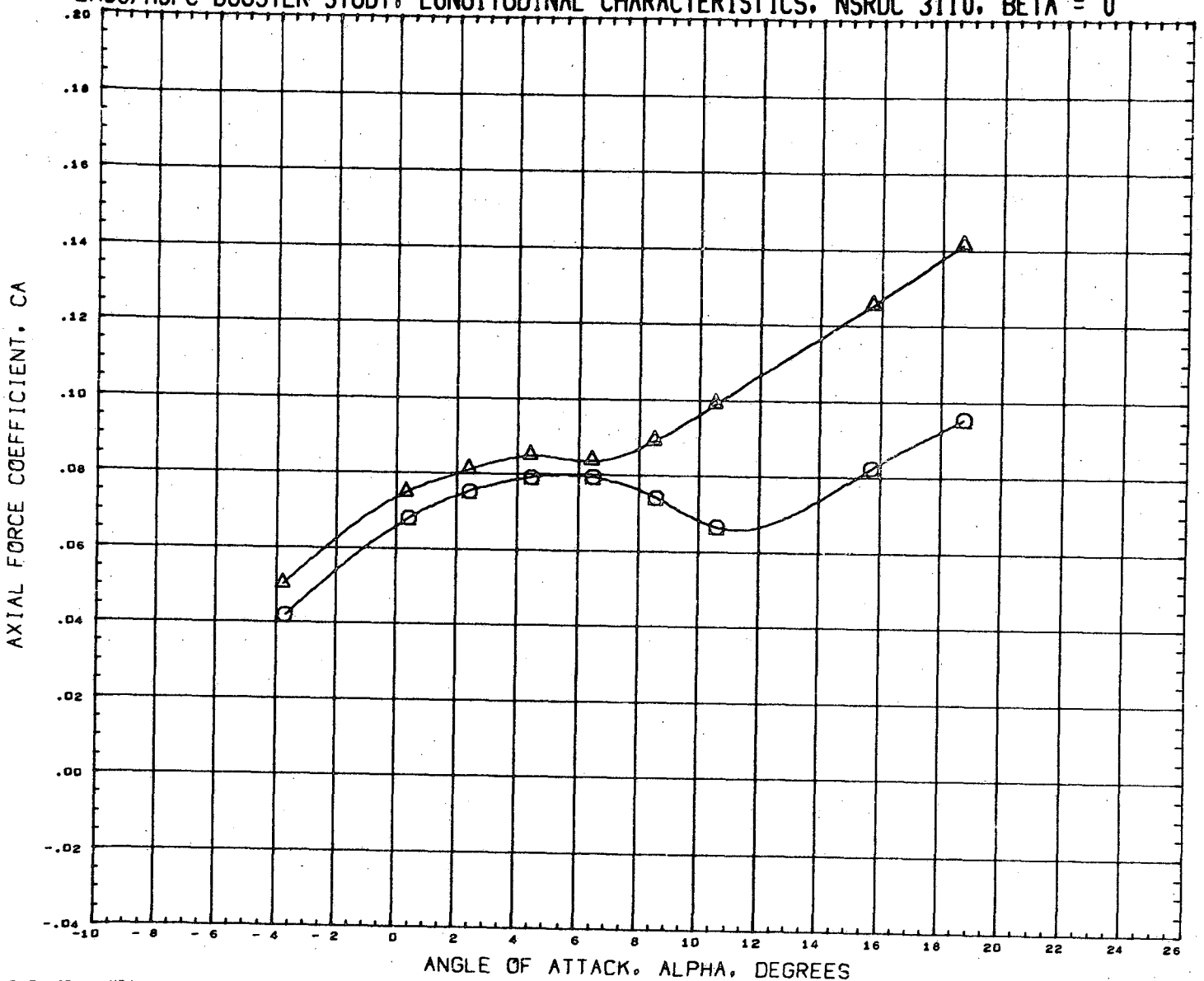



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2273) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 1.000 | 0.000 | 2.000 |
| (RN2305) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 1.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

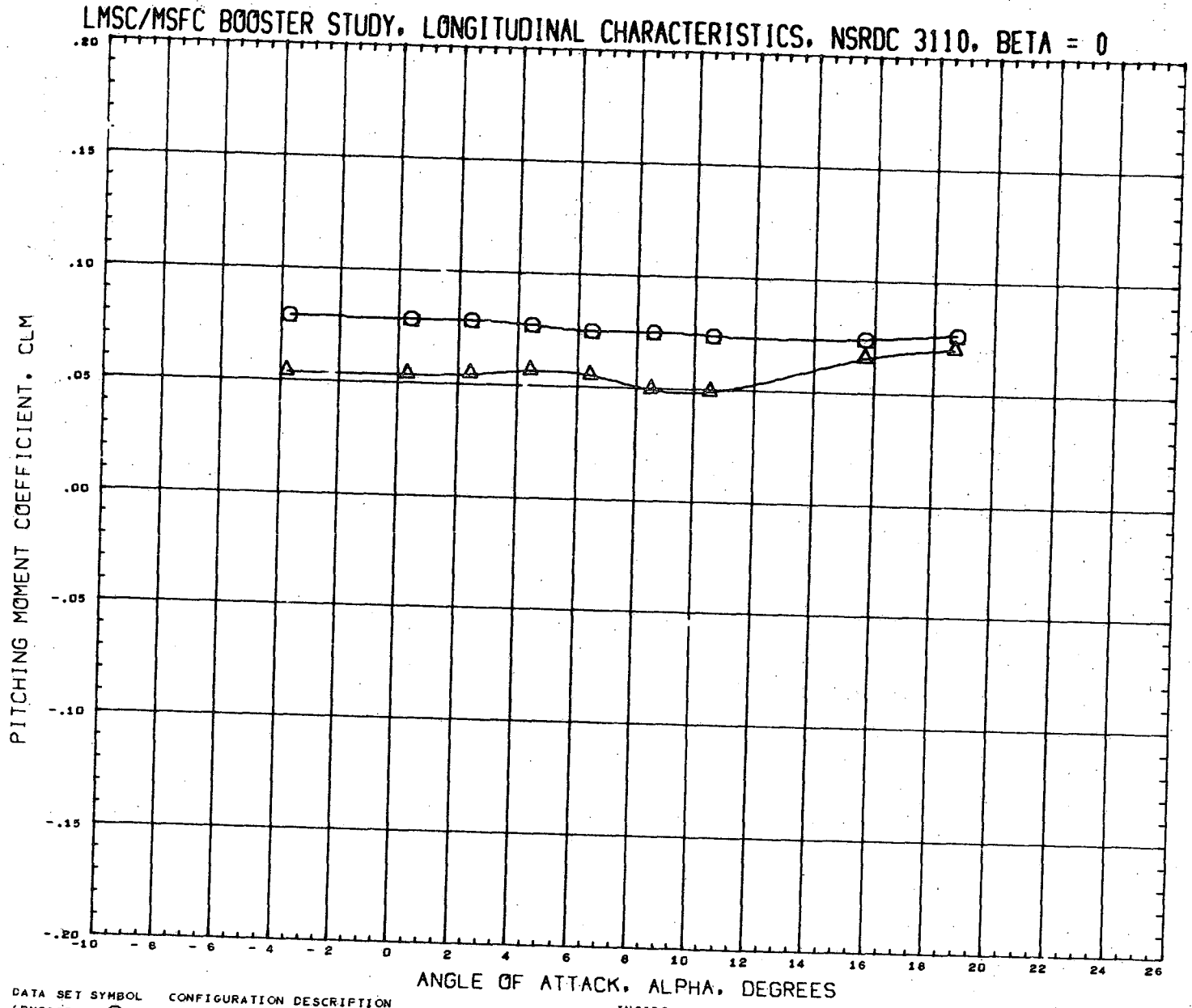
# LMSC/MSFC BOOSTER STUDY. LONGITUDINAL CHARACTERISTICS. NSRDC 3110. BETA = 0




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2273) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 1.000 | 0.000 | 2.000 |
| (RN2305) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 1.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

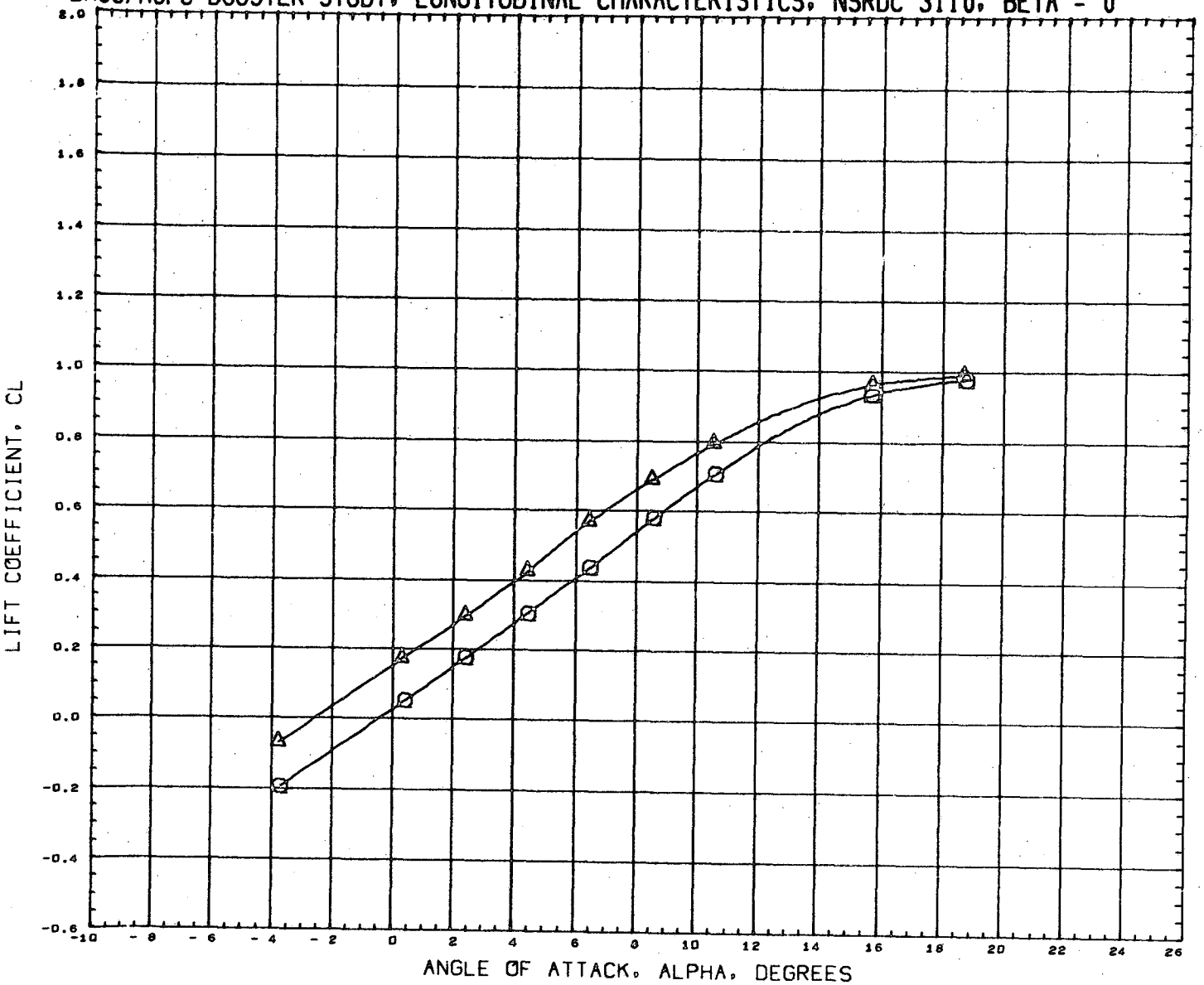



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDFOS | INCIDW | WNGFOS |
|---|---|---|---|---|---|
| (RN2273) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 1.000 | 0.000 | 2.000 |
| (RN2305) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 1.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

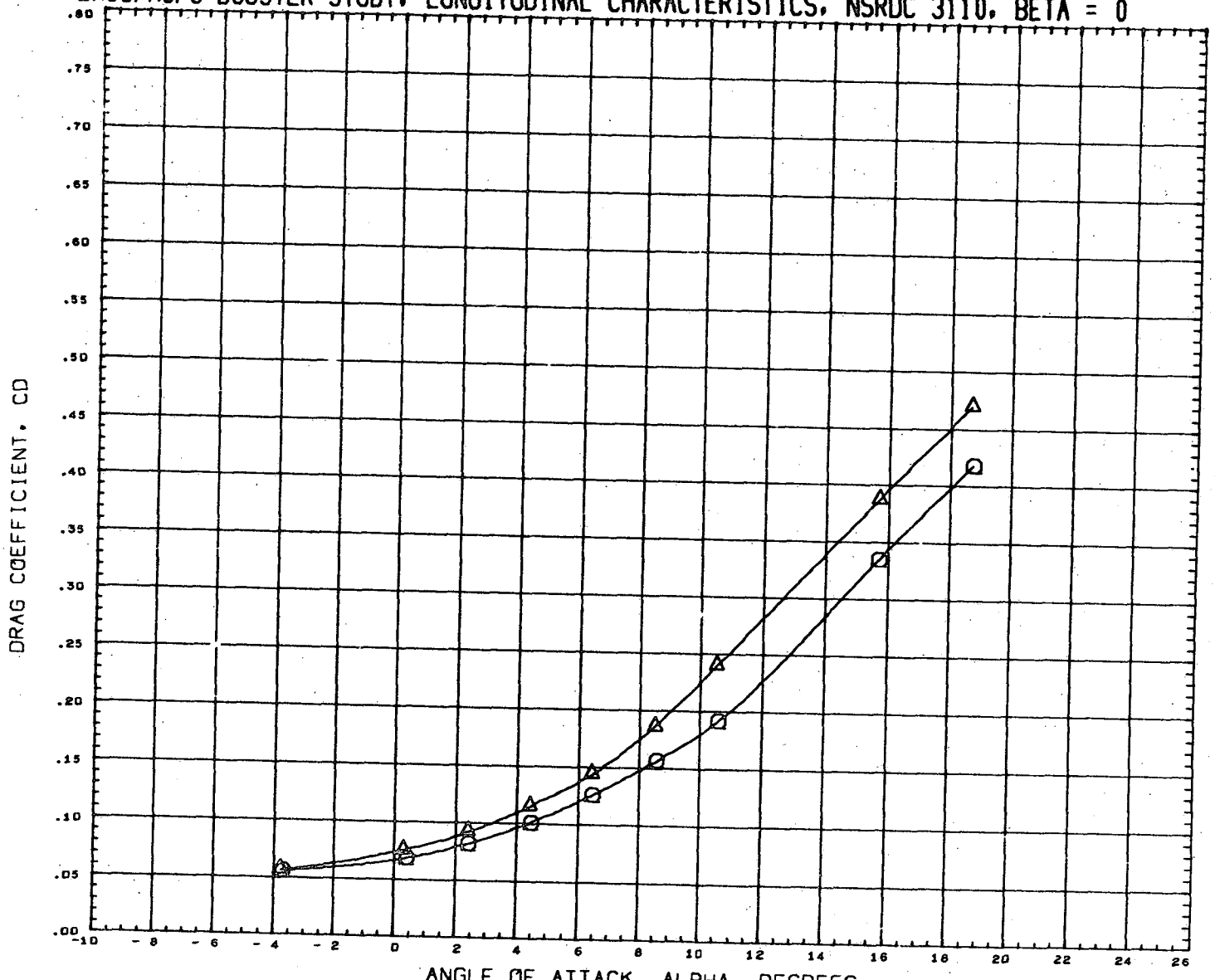



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2273) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 1.000 | 0.000 | 2.000 |
| (RN2305) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 1.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2273) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 1.000 | 0.000 | 2.000 |
| (RN2305) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 1.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

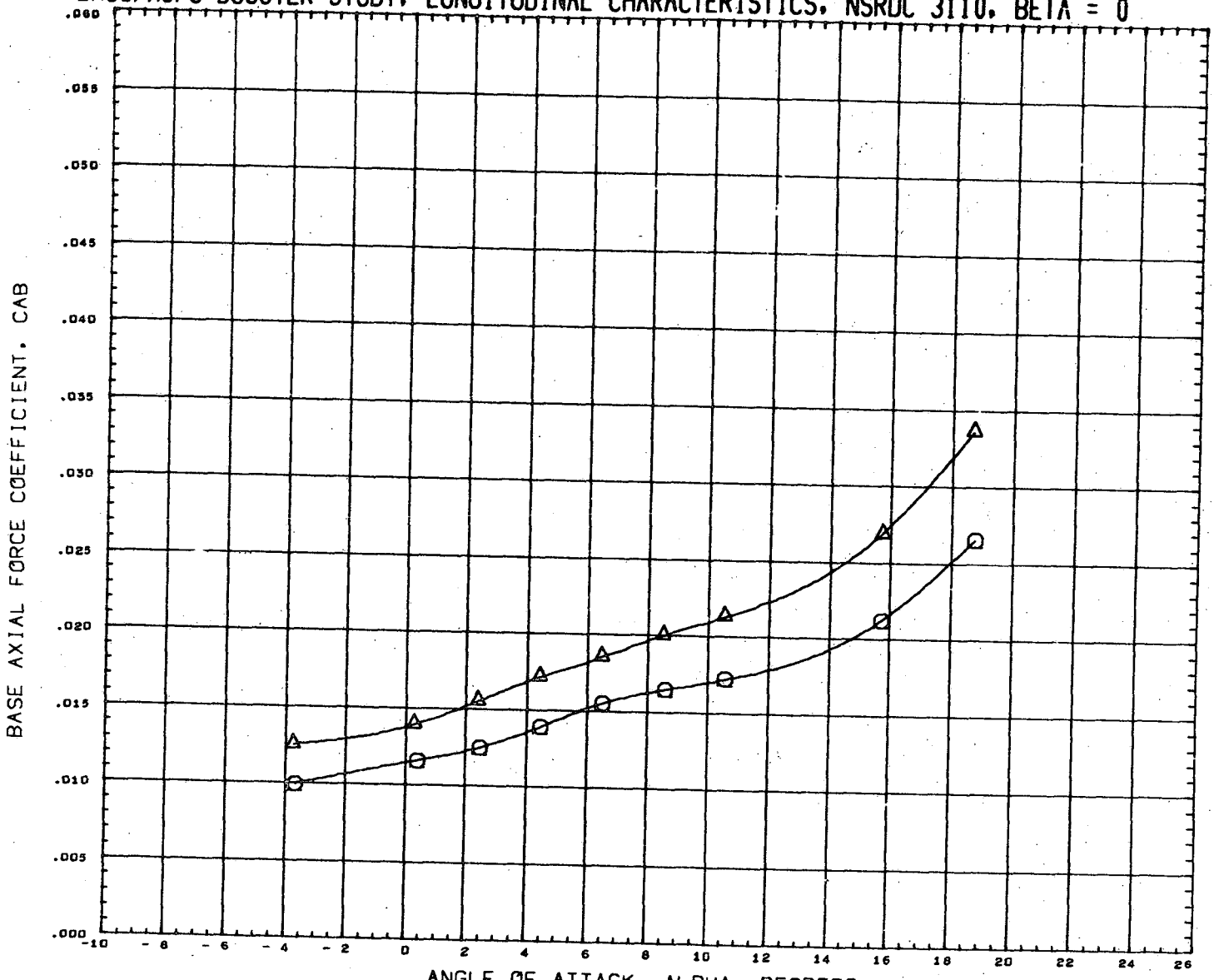
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2273) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 1.000 | 0.000 | 2.000 |
| (RN2305) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 1.000 | 3.000 | 2.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | CONFIGURATION DESCRIPTION |
|---|---|
| (RN2273) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 |
| (RN2305) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 |

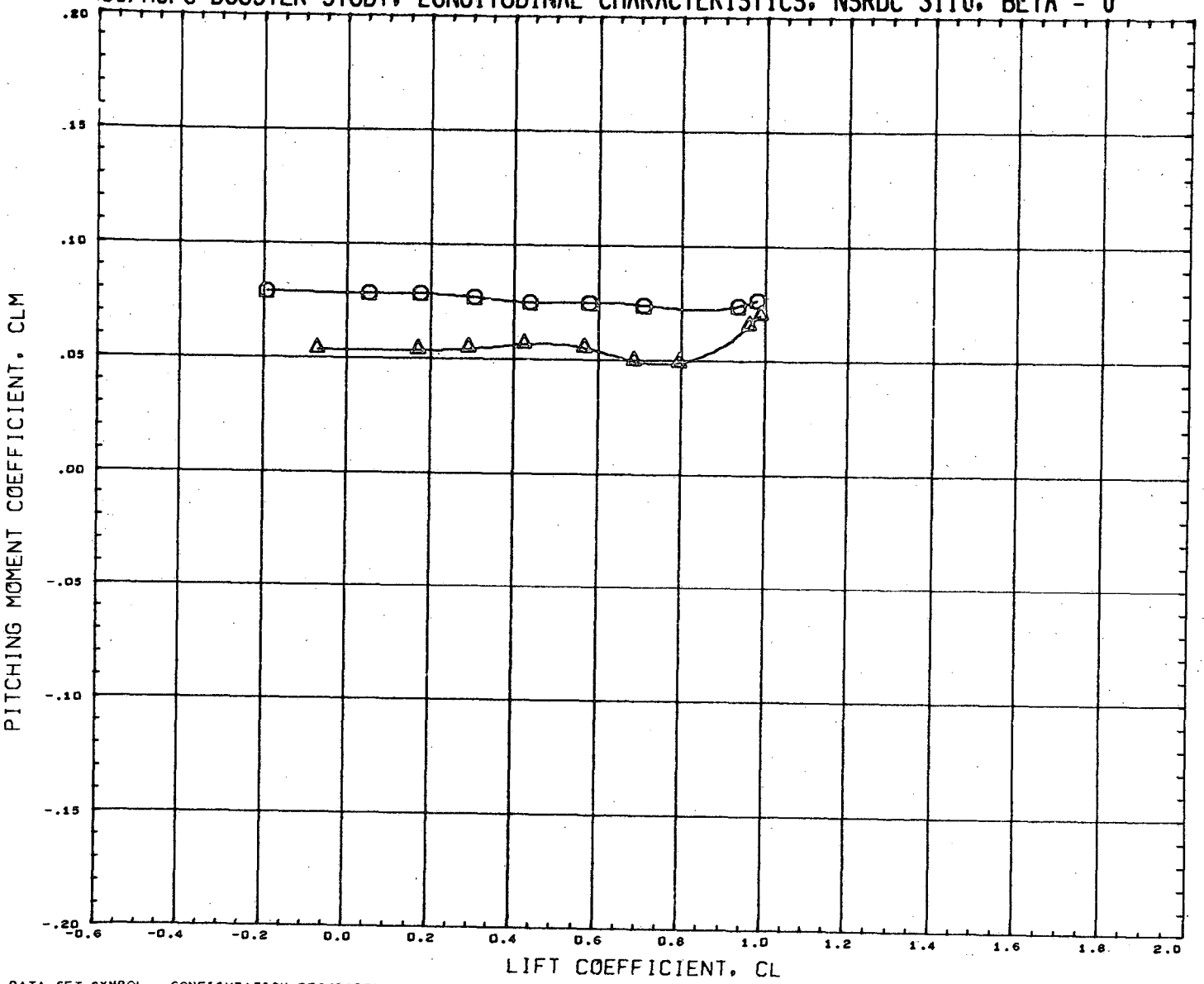
| INCIDC | CNDFOS | INCIDW | WNGFOS |
|---|---|---|---|
| 15.000 | 1.000 | 0.000 | 2.000 |
| 15.000 | 1.000 | 3.000 | 2.000 |

MACH 0.381

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

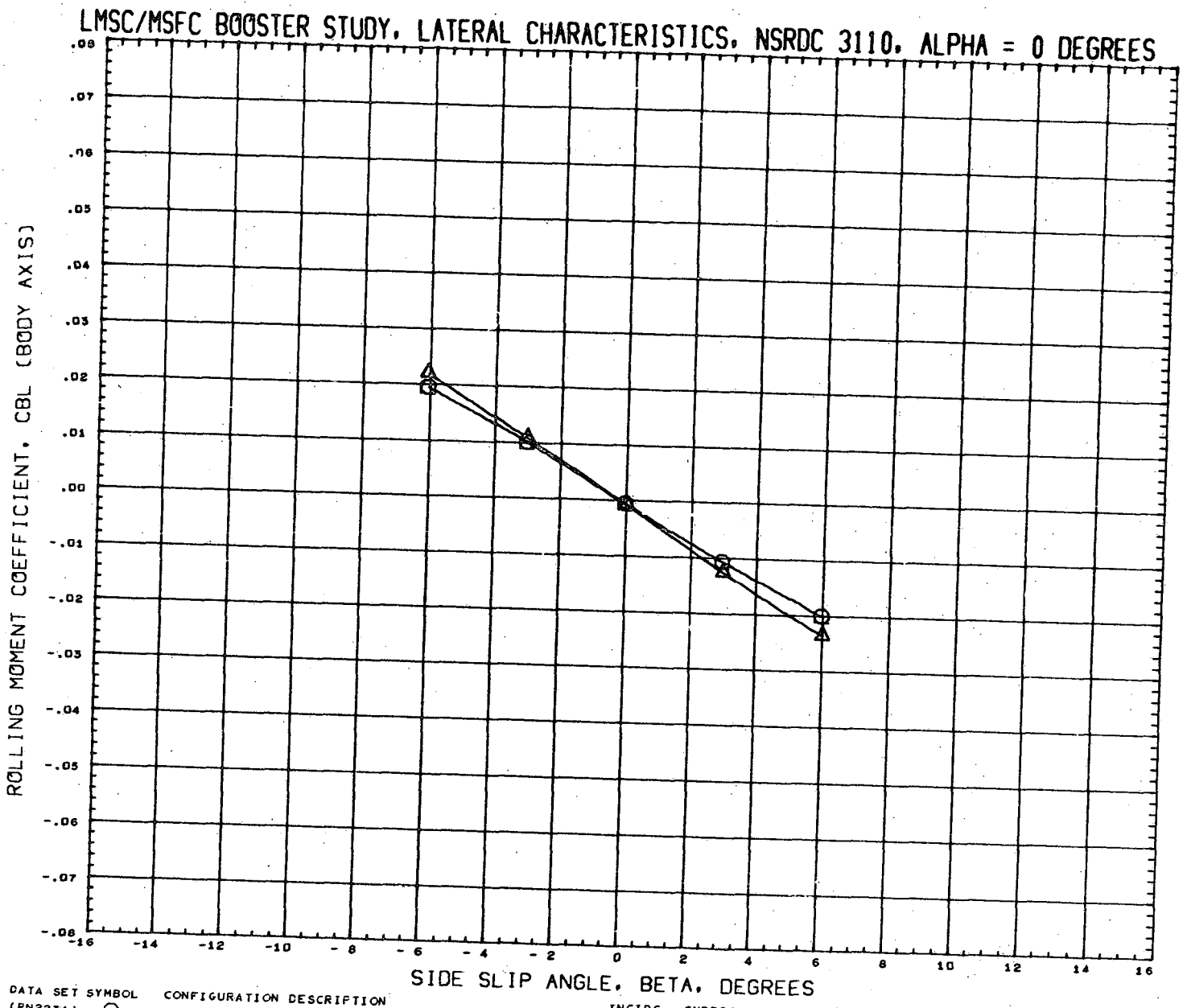



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2273) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 1.000 | 0.000 | 2.000 |
| (RN2305) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 1.000 | 3.000 | 2.000 |

MACH 0.381

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

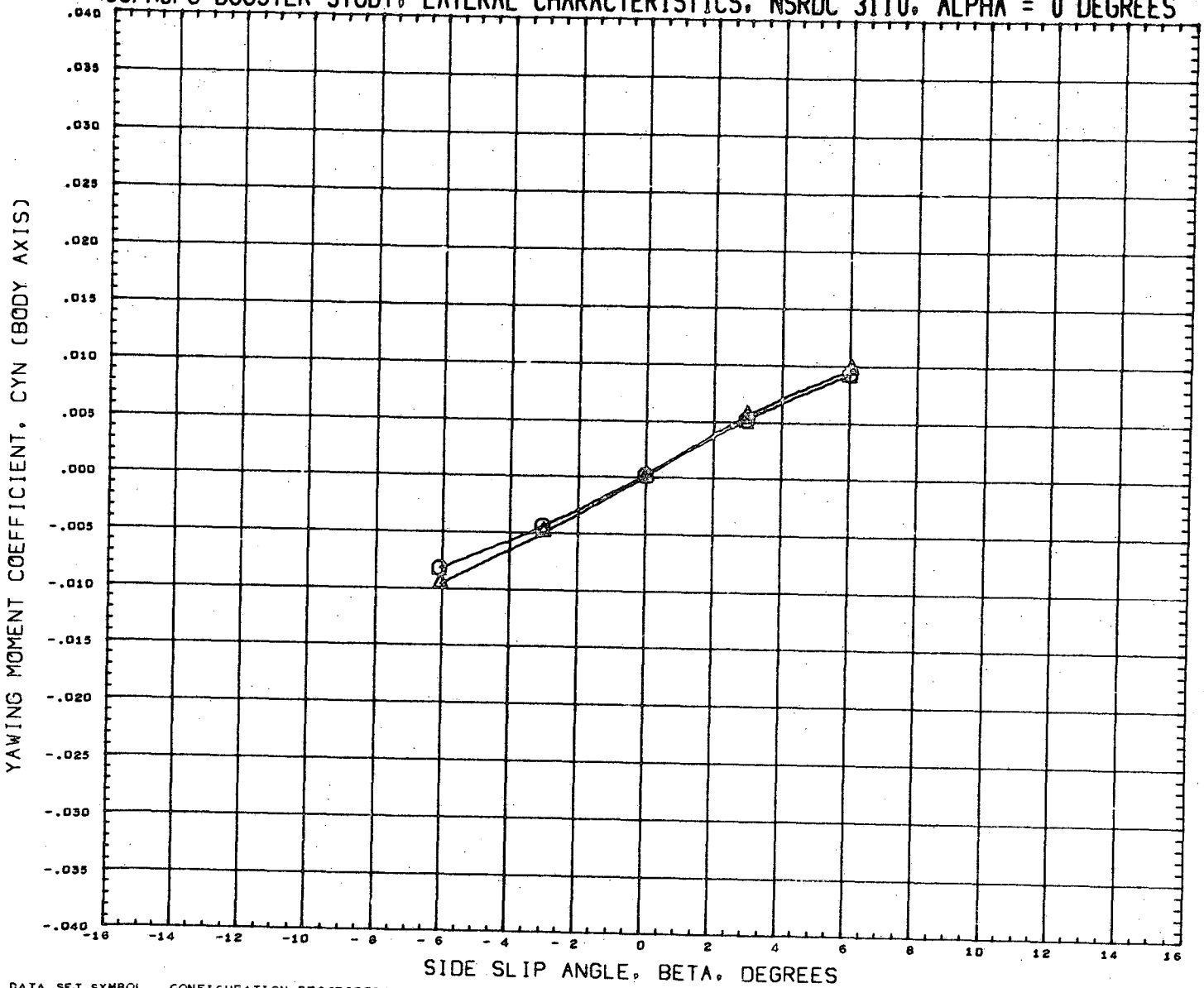



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2274) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 1.000 | 0.000 | 2.000 |
| (RN2306) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 1.000 | 3.000 | 2.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

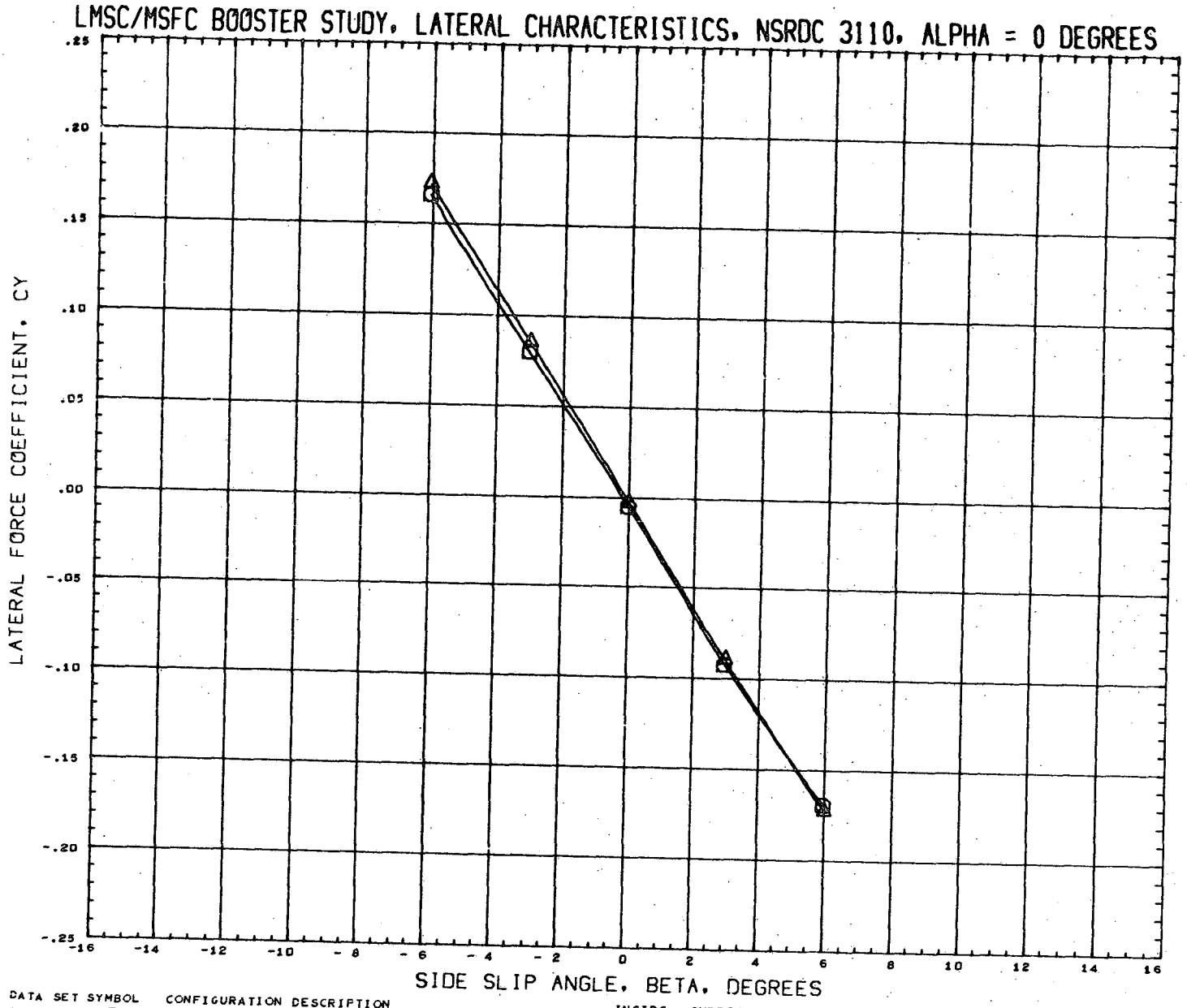
# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES




| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2274) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 1.000 | 0.000 | 2.000 |
| (RN2306) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 1.000 | 3.000 | 2.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

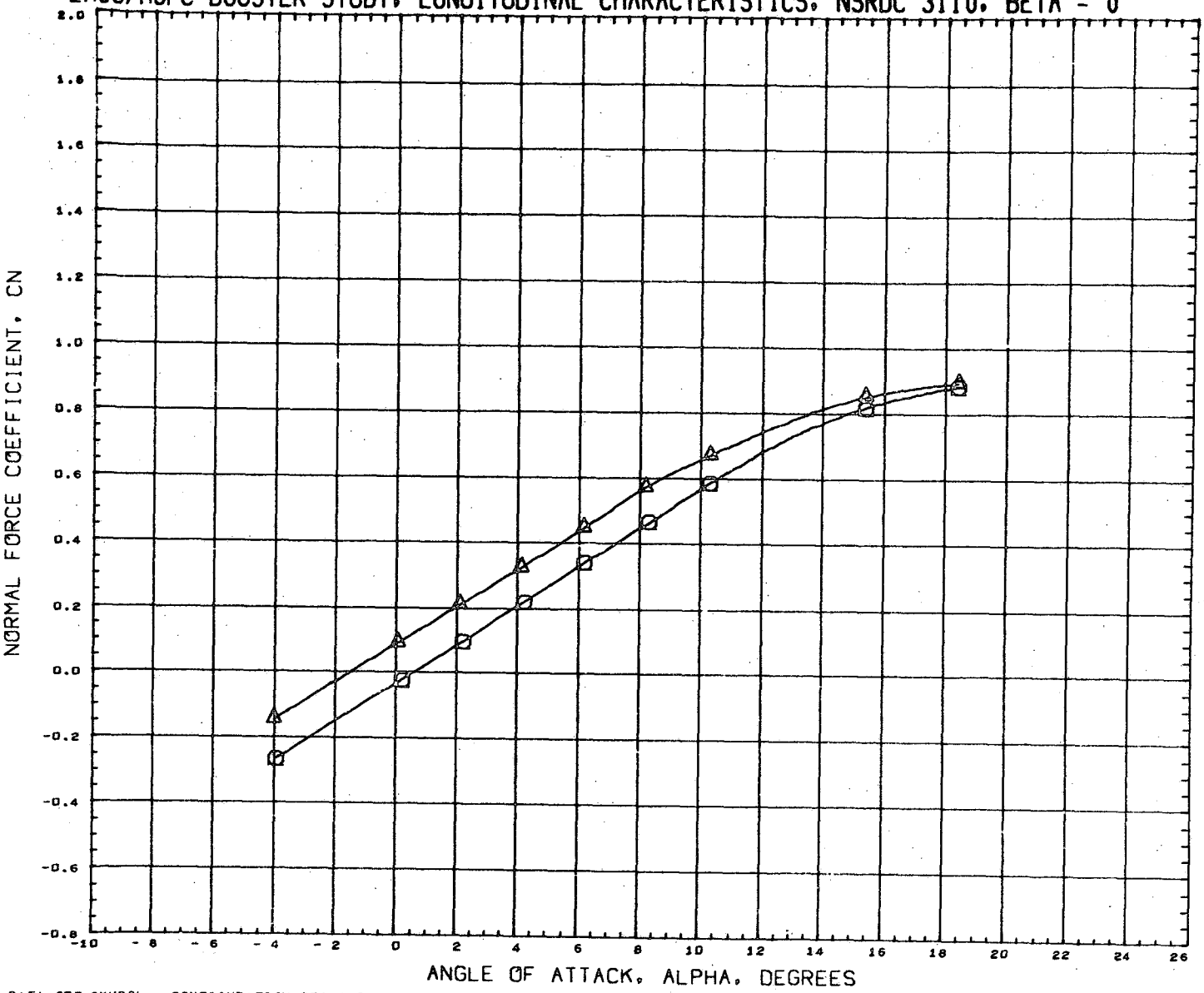



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2274) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 1.000 | 0.000 | 2.000 |
| (RN2306) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 1.000 | 3.000 | 2.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

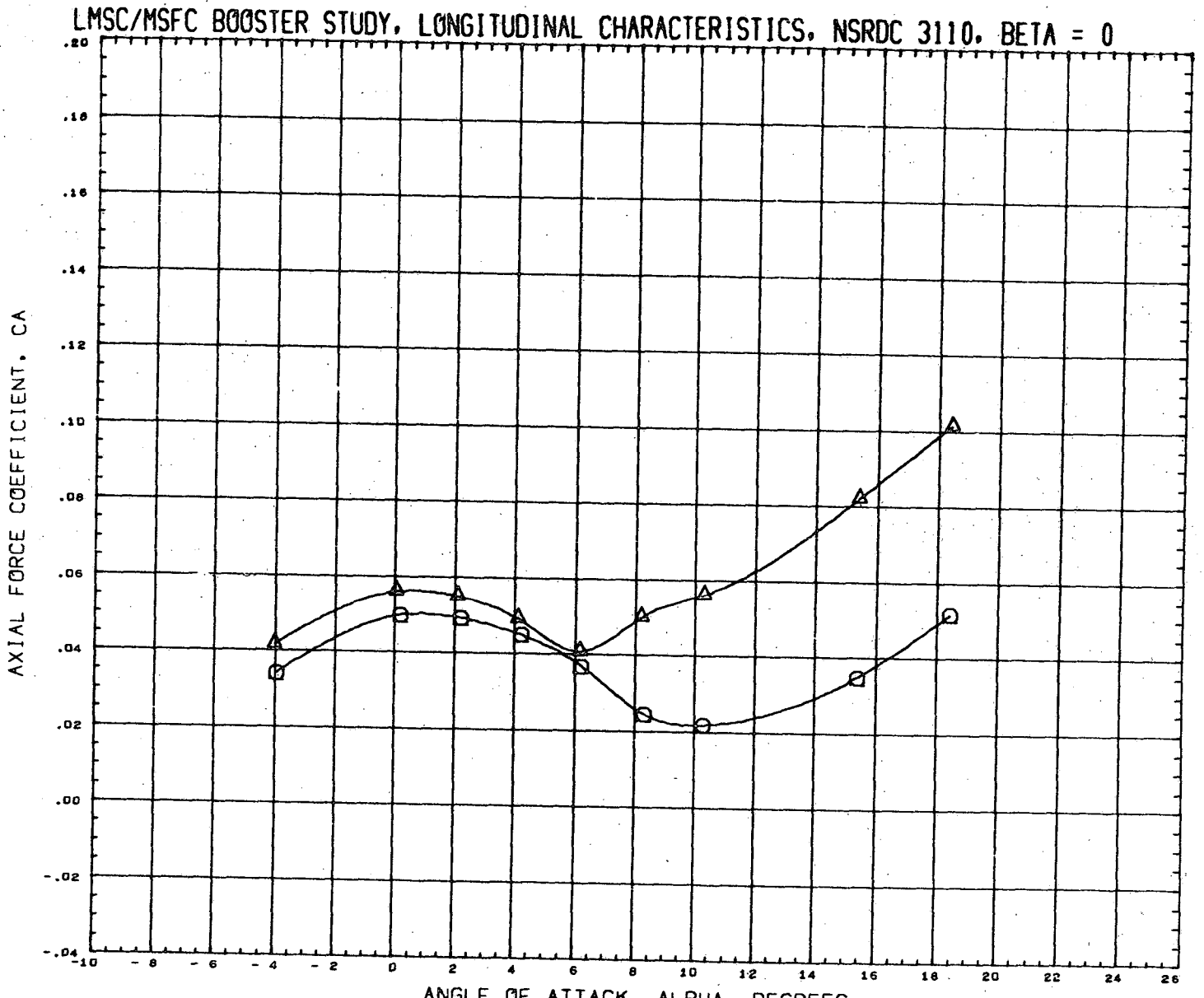
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2277) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 2.000 | 0.000 | 2.000 |
| (RN2309) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 2.000 | 3.000 | 2.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

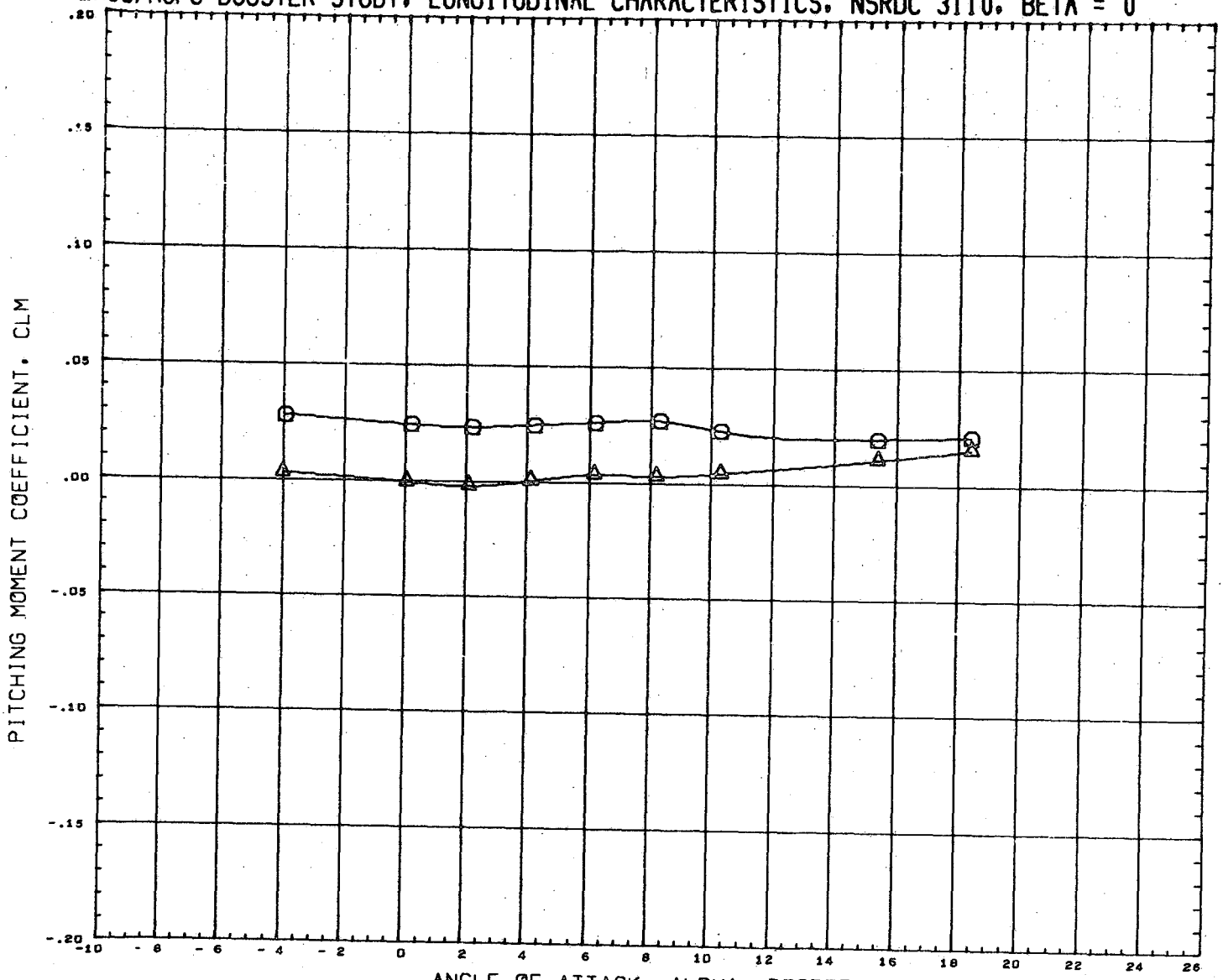



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2277) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 2.000 | 0.000 | 2.000 |
| (RN2309) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 2.000 | 3.000 | 2.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY. LONGITUDINAL CHARACTERISTICS. NSRDC 3110. BETA = 0




| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION |
|---|---|---|
| (RN2277) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 |
| (RN2309) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 |

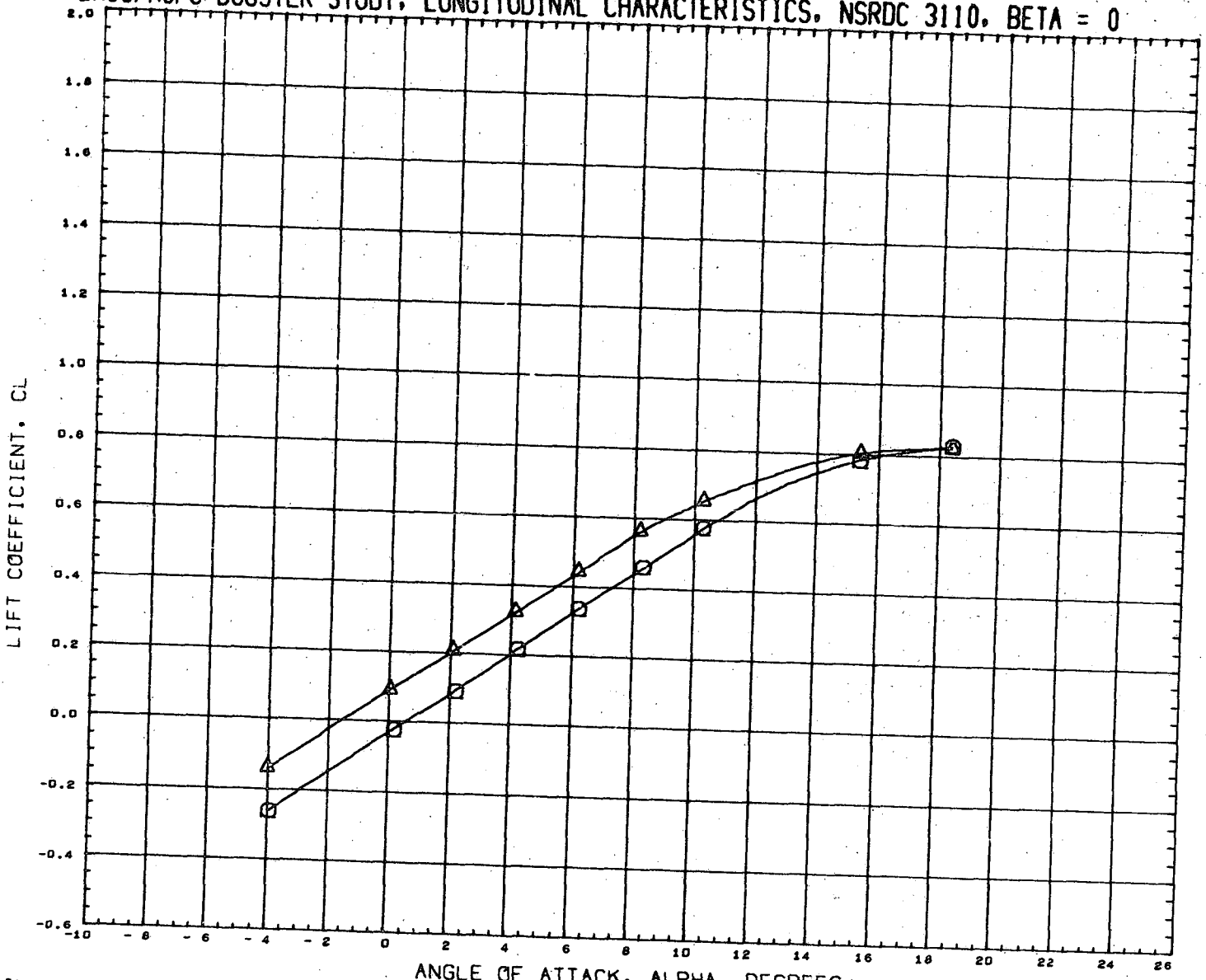
| | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|
| | 3.000 | 2.000 | 0.000 | 2.000 |
| | 3.000 | 2.000 | 3.000 | 2.000 |

MACH 0.380

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

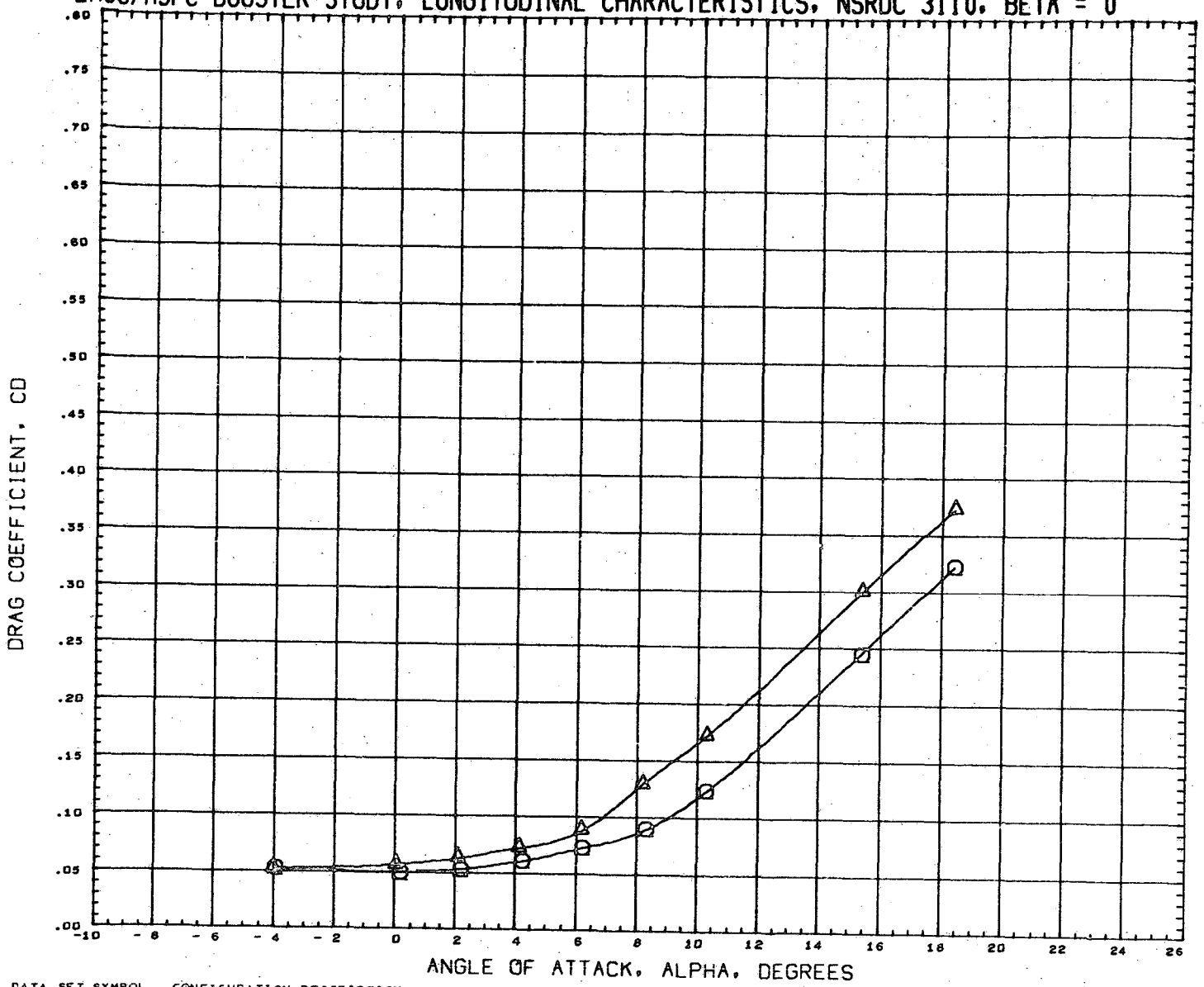



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2277) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 2.000 | 0.000 | 2.000 |
| (RN2309) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 2.000 | 3.000 | 2.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.7250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

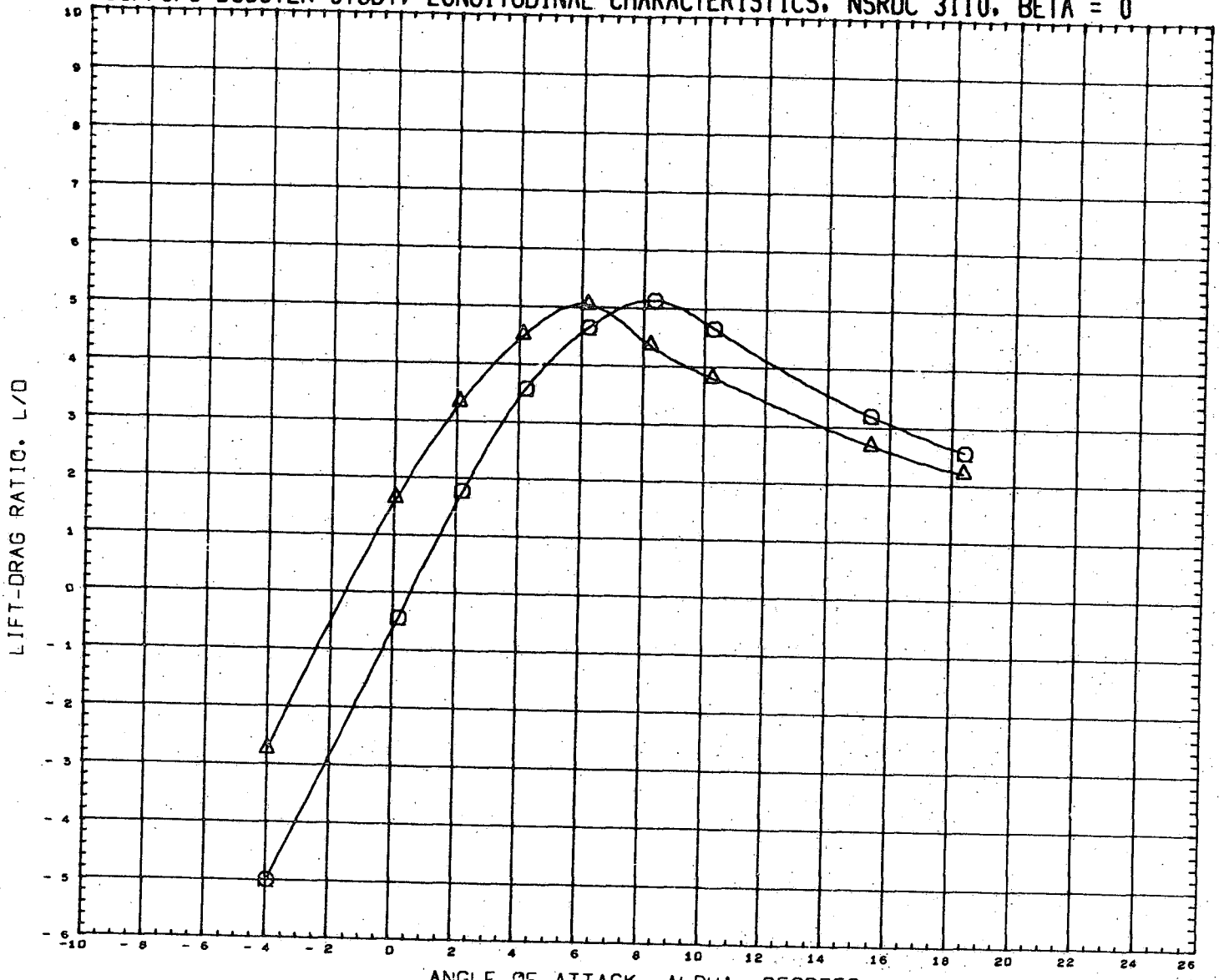



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2277) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 2.000 | 0.000 | 2.000 |
| (RN2309) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 2.000 | 3.000 | 2.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

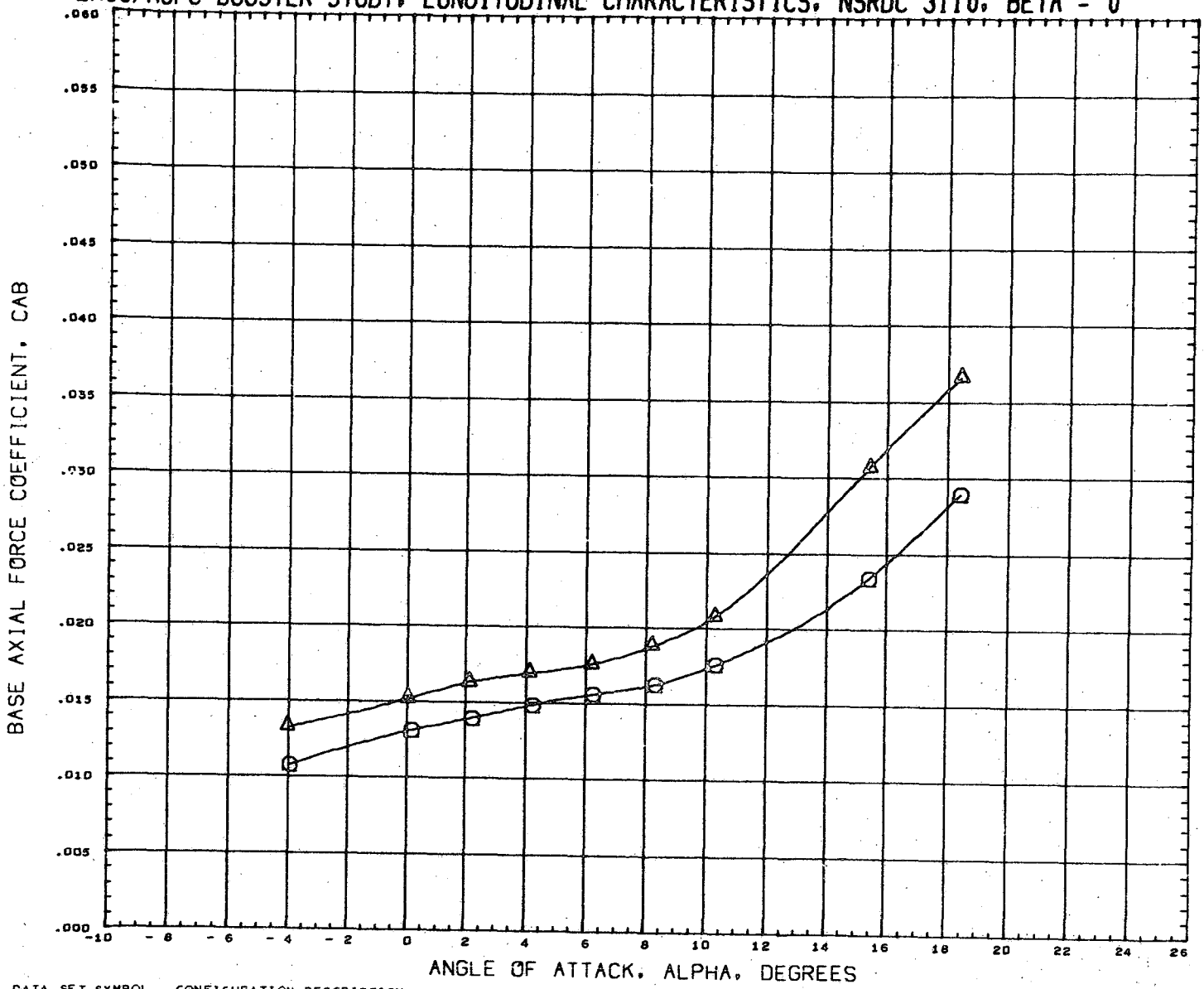



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2277) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 2.000 | 0.000 | 2.000 |
| (RN2309) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 2.000 | 3.000 | 2.000 |

MACH 0.360

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

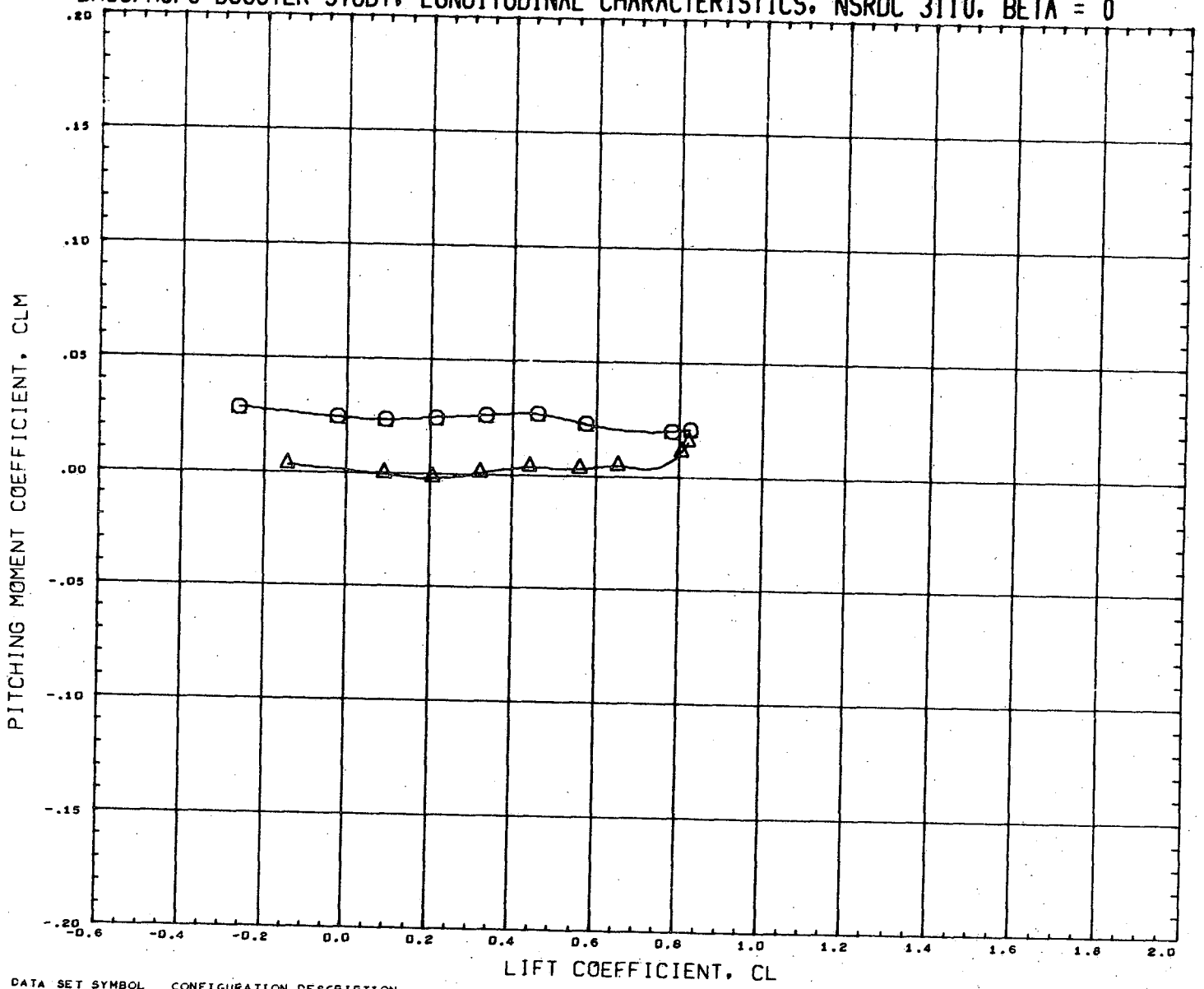



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2277) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 2.000 | 0.000 | 2.000 |
| (RN2309) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 2.000 | 3.000 | 2.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0



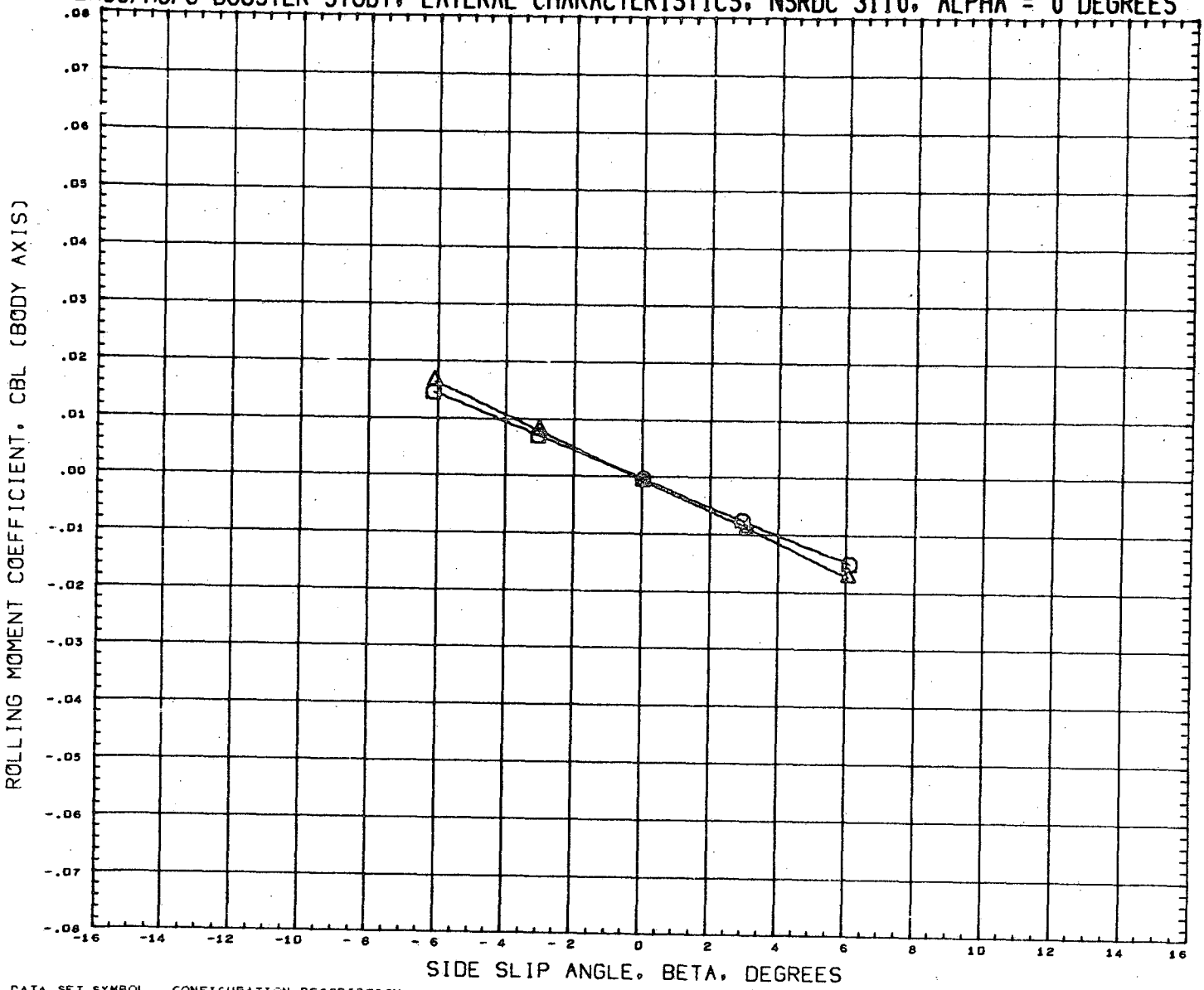

| DATA SET SYMBOL | CONFIGURATION DESCRIPTION |
|---|---|
| (RN2277) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 |
| (RN2309) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 |

| INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|
| 3.000 | 2.000 | 0.000 | 2.000 |
| 3.000 | 2.000 | 3.000 | 2.000 |

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

MACH 0.380

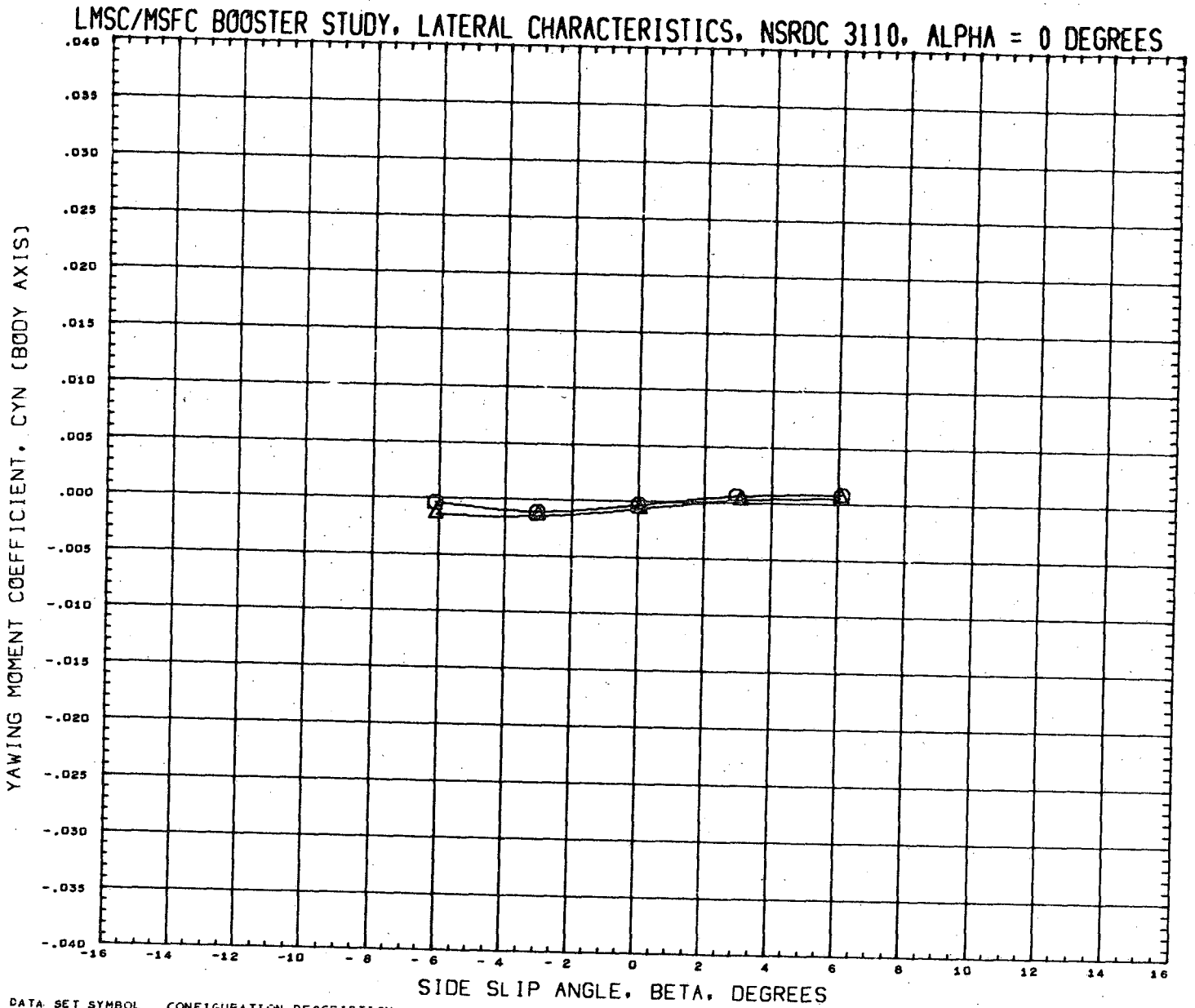
# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES




| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDFOS | INCIDW | WNGFOS |
|---|---|---|---|---|---|---|
| (RN2278) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 2.000 | 0.000 | 2.000 |
| (RN2310) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 2.000 | 3.000 | 2.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

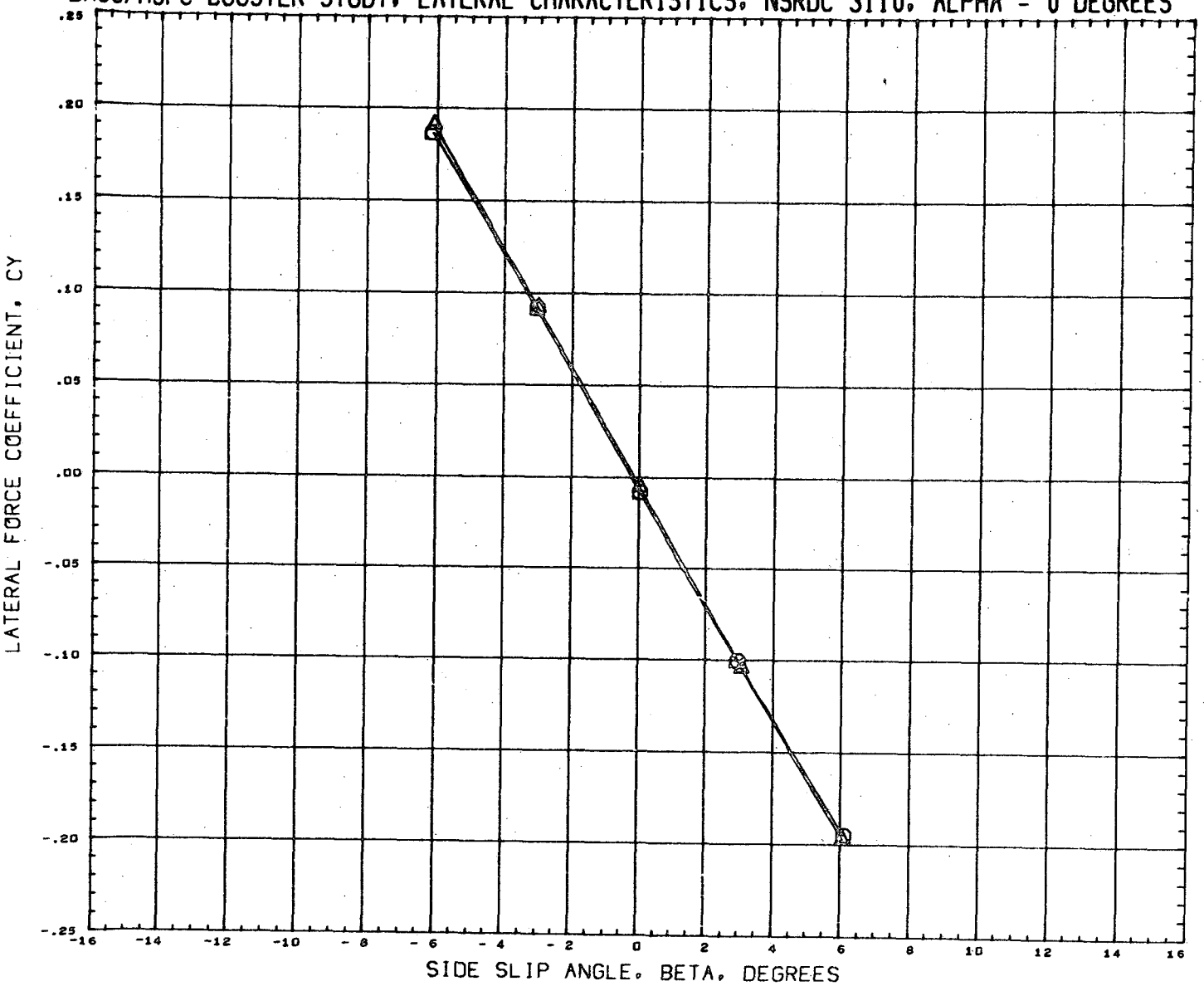



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2278) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 2.000 | 0.000 | 2.000 |
| (RN2310) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 2.000 | 3.000 | 2.000 |

MACH 0.360

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.3000 | PERCNT |

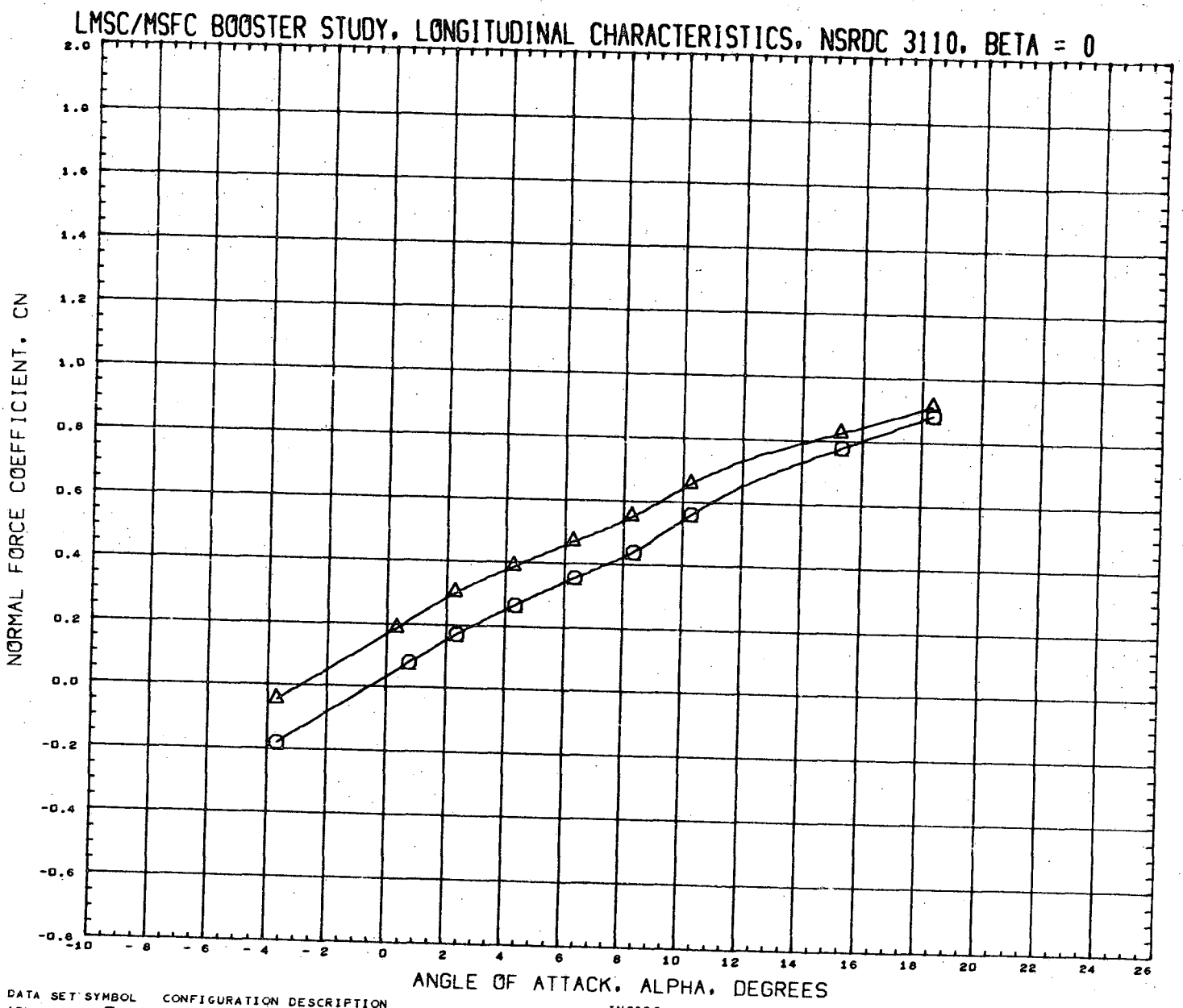
# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES




| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDFOS | INCIDW | WNGFOS |
|---|---|---|---|---|---|---|
| (RN2278) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 2.000 | 0.000 | 2.000 |
| (RN2310) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 3.000 | 2.000 | 3.000 | 2.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

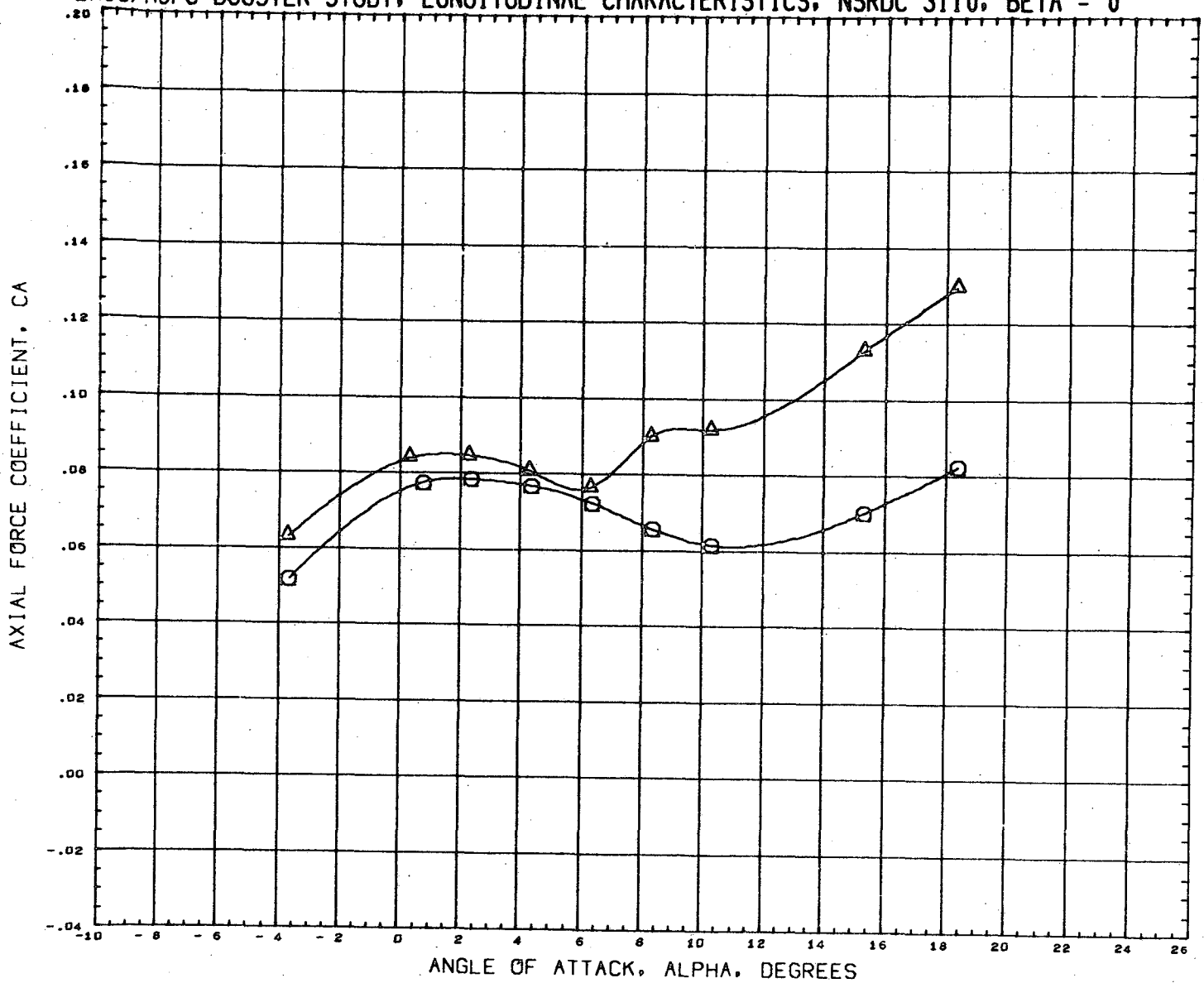



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2281) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 2.000 | 0.000 | 2.000 |
| (RN2313) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 2.000 | 3.000 | 2.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION |
|---|---|---|
| (RN2281) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 |
| (RN2313) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 |

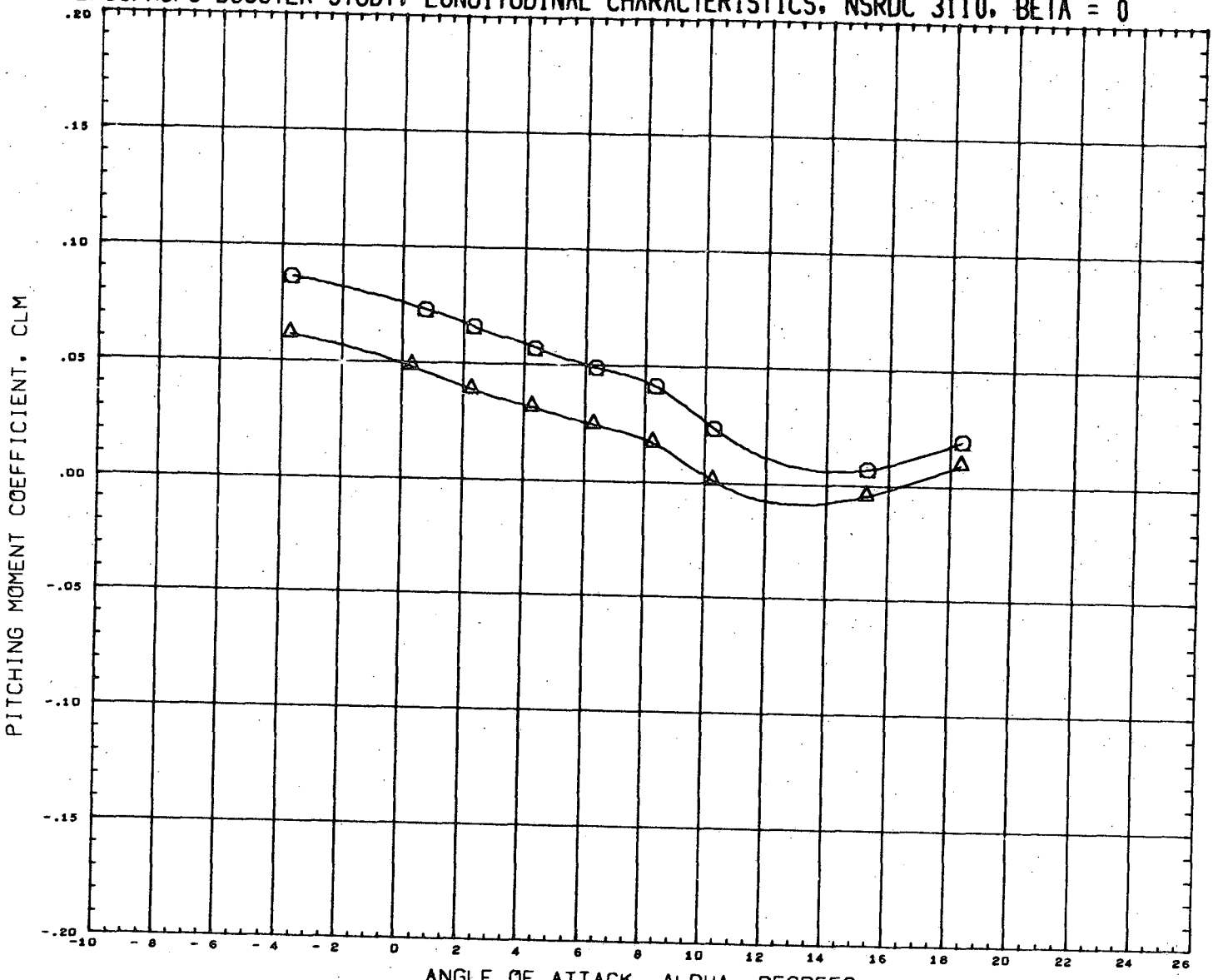
| INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|
| 15.000 | 2.000 | 0.000 | 2.000 |
| 15.000 | 2.000 | 3.000 | 2.000 |

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

MACH 0.380

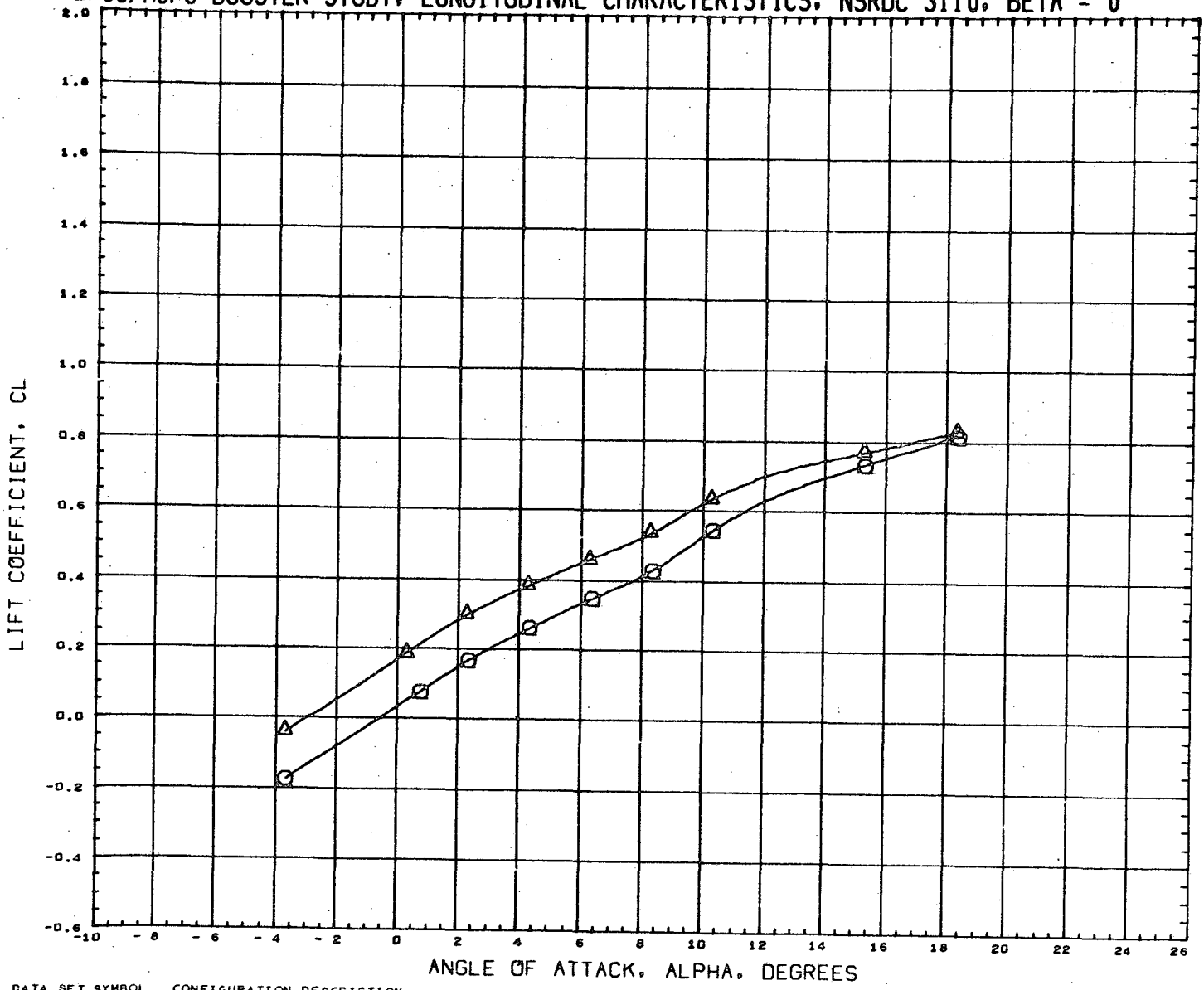
# LMSC/MSFC BØØSTER STUDY, LØNGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2281) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 2.000 | 0.000 | 2.000 |
| (RN2313) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 2.000 | 3.000 | 2.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |



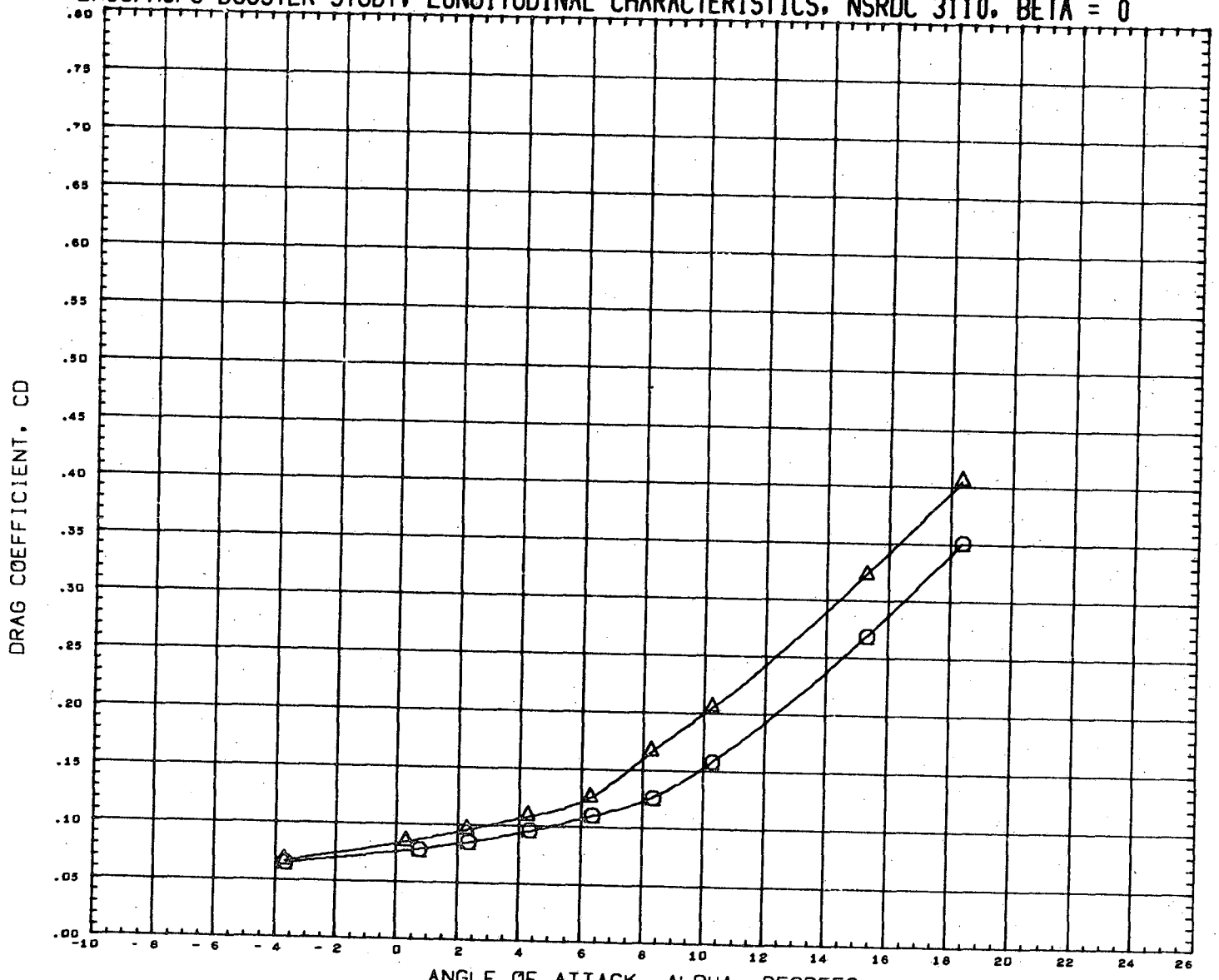

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2281) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 2.000 | 0.000 | 2.000 |
| (RN2313) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 2.000 | 3.000 | 2.000 |

MACH 0.380

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

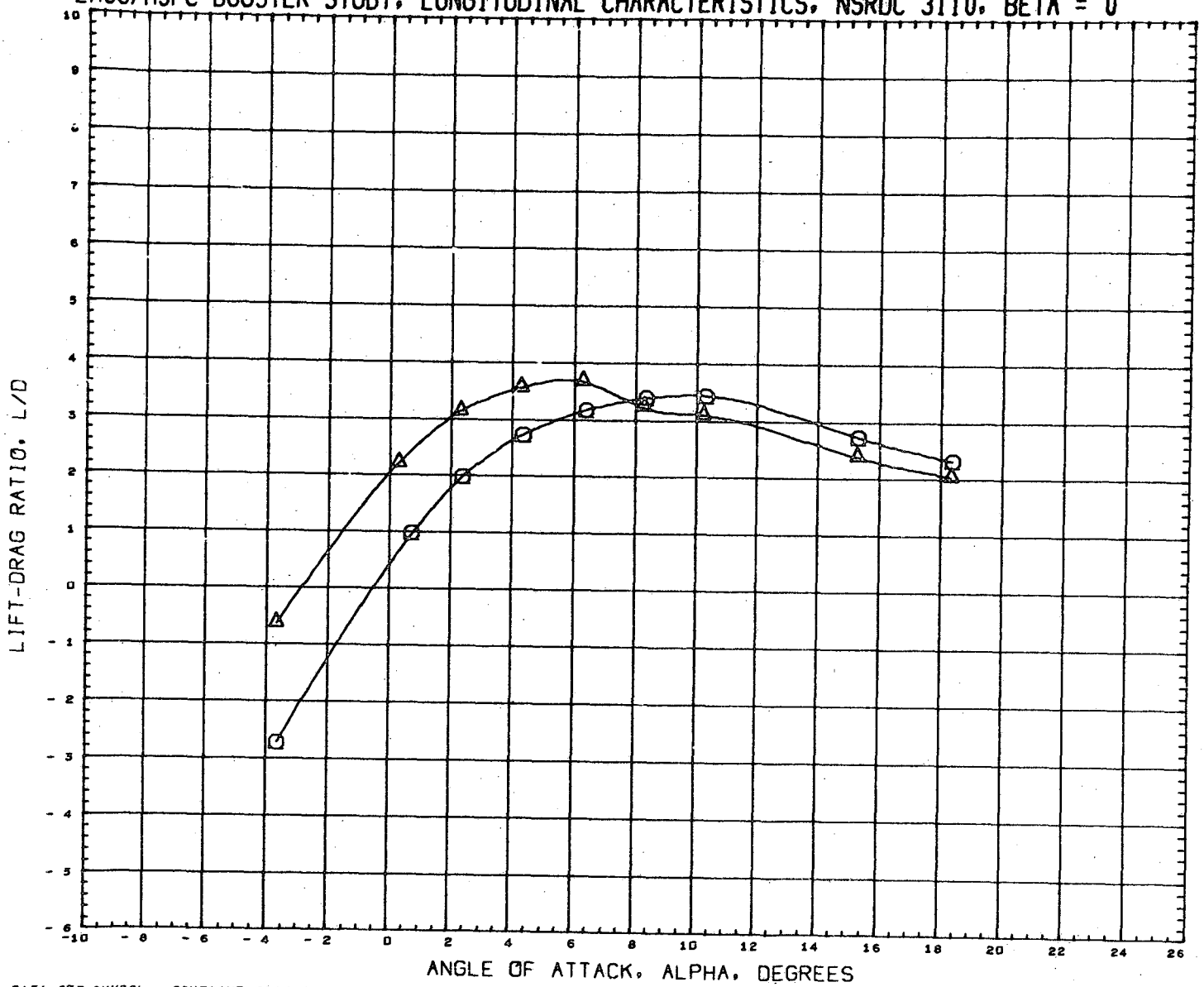



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2281) ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 2.000 | 0.000 | 2.000 |
| (RN2313) △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 2.000 | 3.000 | 2.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

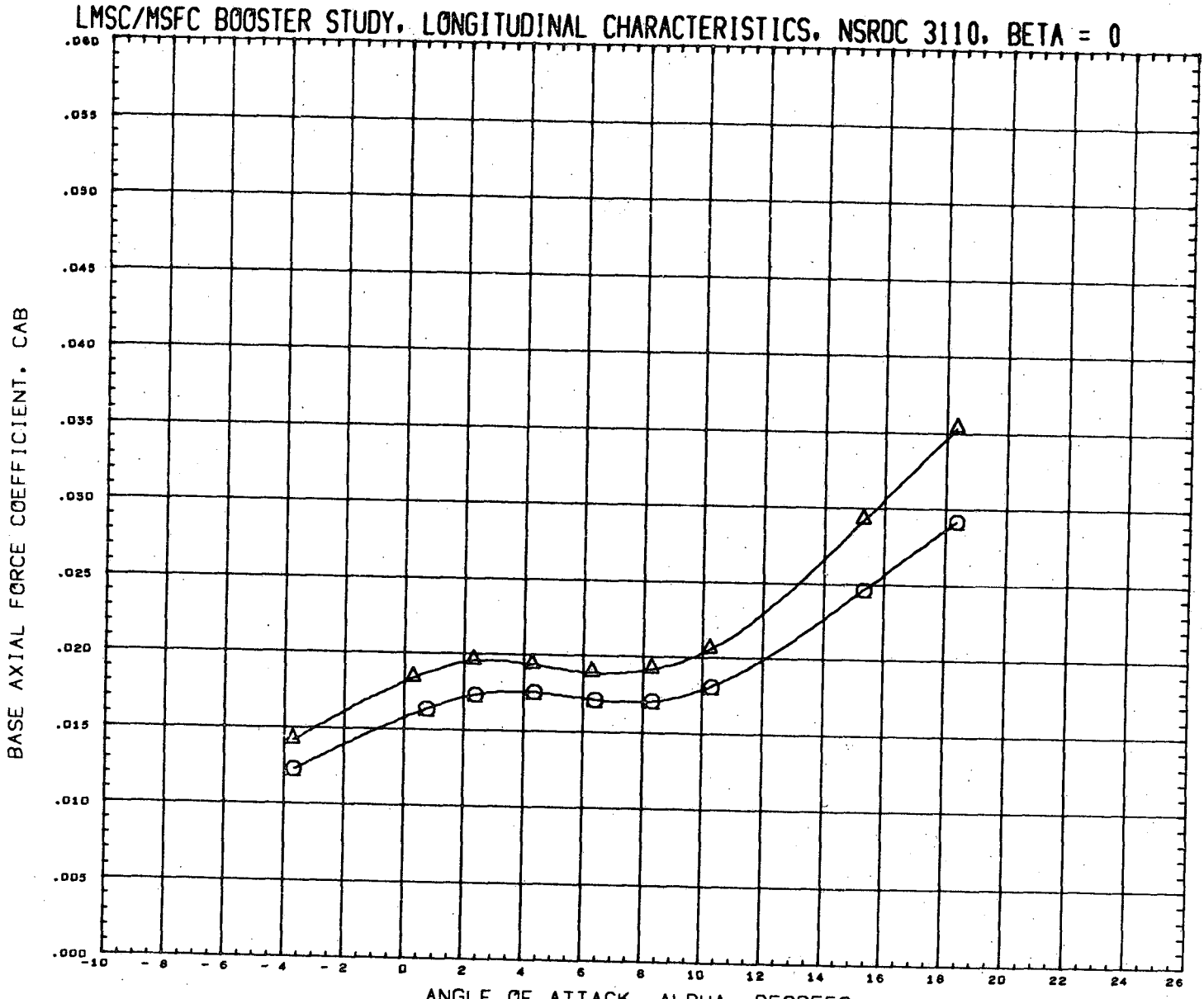
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2281) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 2.000 | 0.000 | 2.000 |
| (RN2313) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 2.000 | 3.000 | 2.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

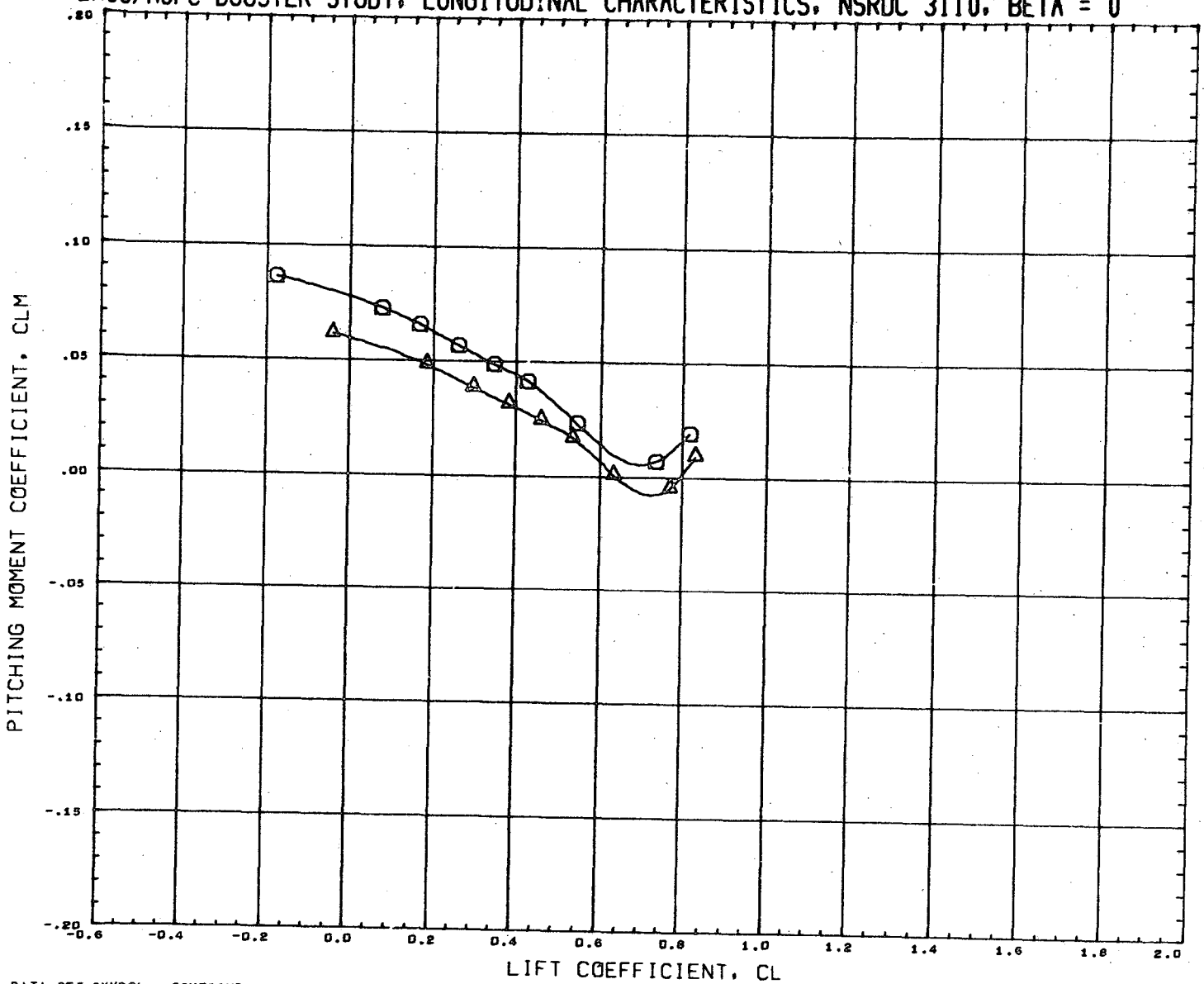



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|
| (RN2281) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 2.000 | 0.000 | 2.000 |
| (RN2313) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 2.000 | 3.000 | 2.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

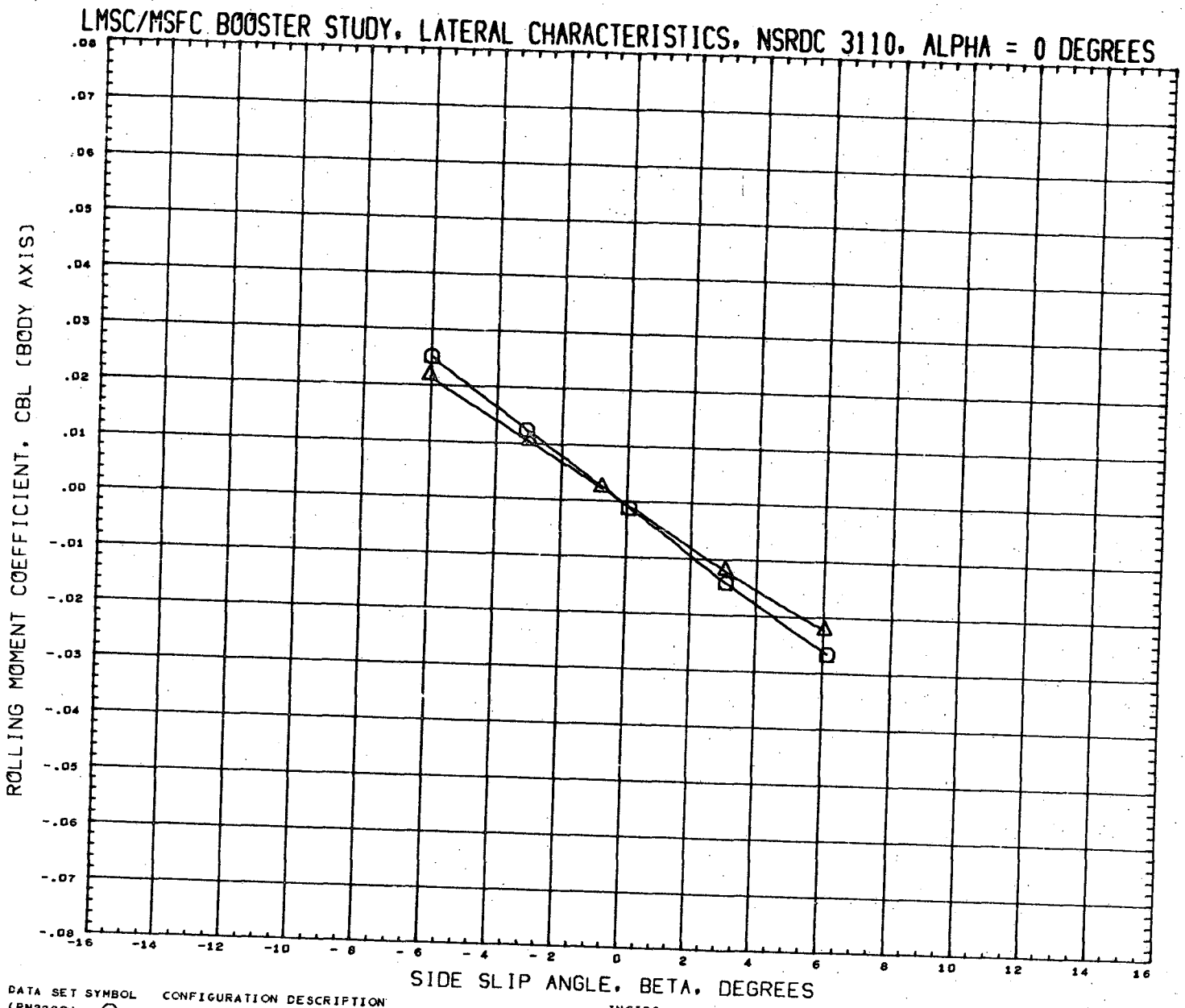



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2281) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 2.000 | 0.000 | 2.000 |
| (RN2313) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 2.000 | 3.000 | 2.000 |

MACH 0.380

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

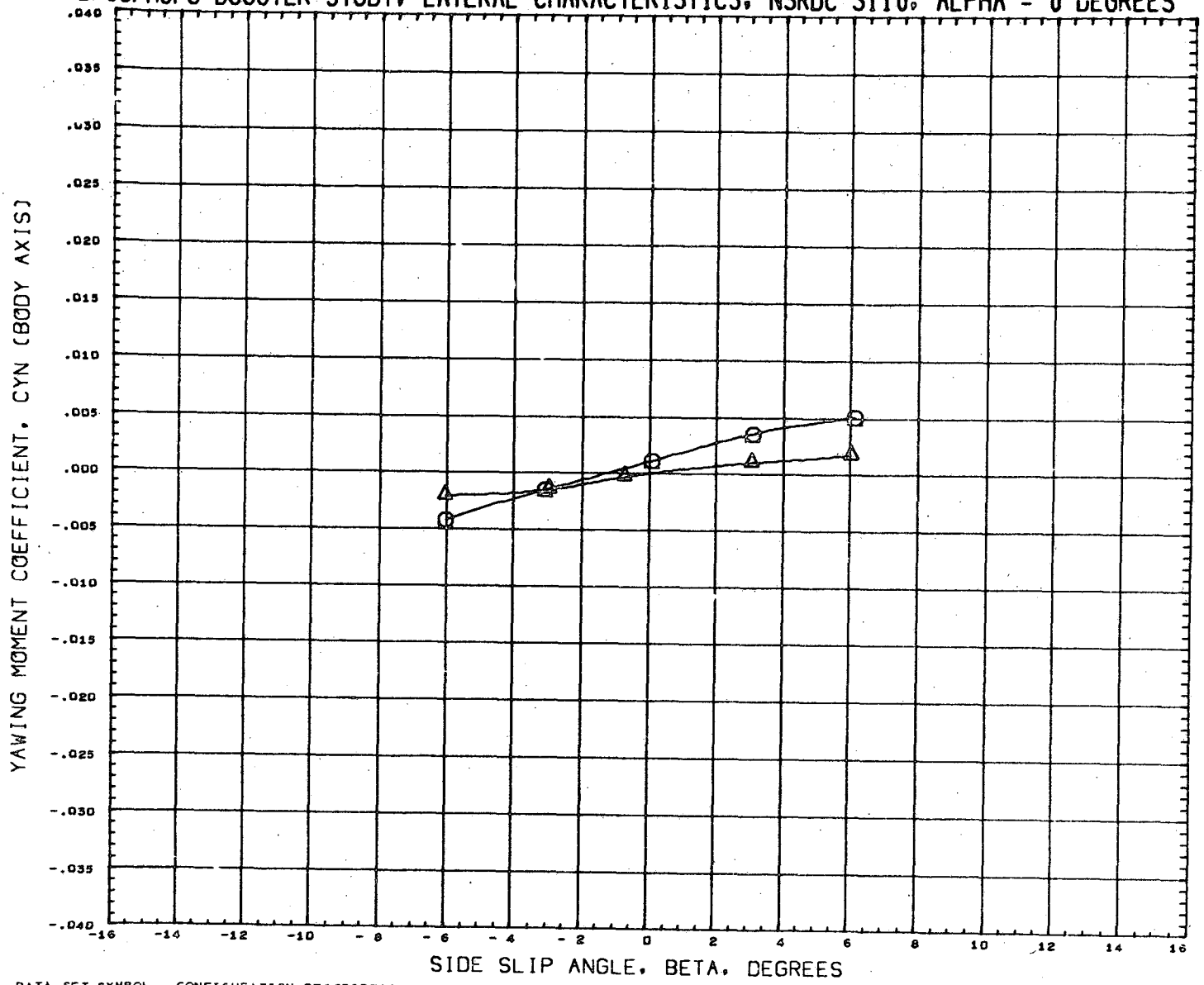



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDFOS | INCIDW | WNGFOS |
|---|---|---|---|---|---|
| (RN2282) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 2.000 | 0.000 | 2.000 |
| (RN2314) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 2.000 | 3.000 | 2.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

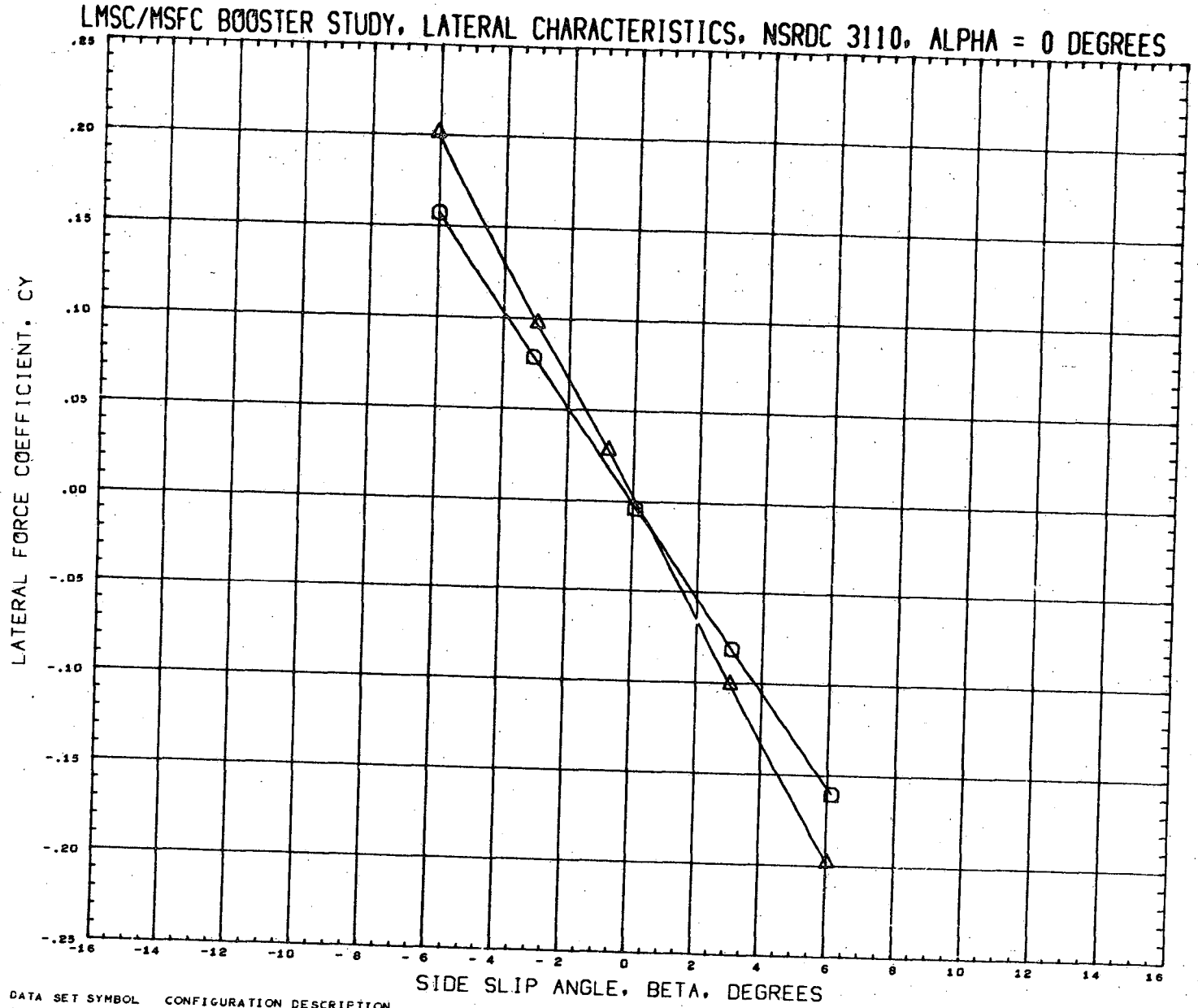
# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | INCIDC | CNDPOS | INCIDW | WNGPOS |
|---|---|---|---|---|---|---|
| (RN2282) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 2.000 | 0.000 | 2.000 |
| (RN2314) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 2.000 | 3.000 | 2.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

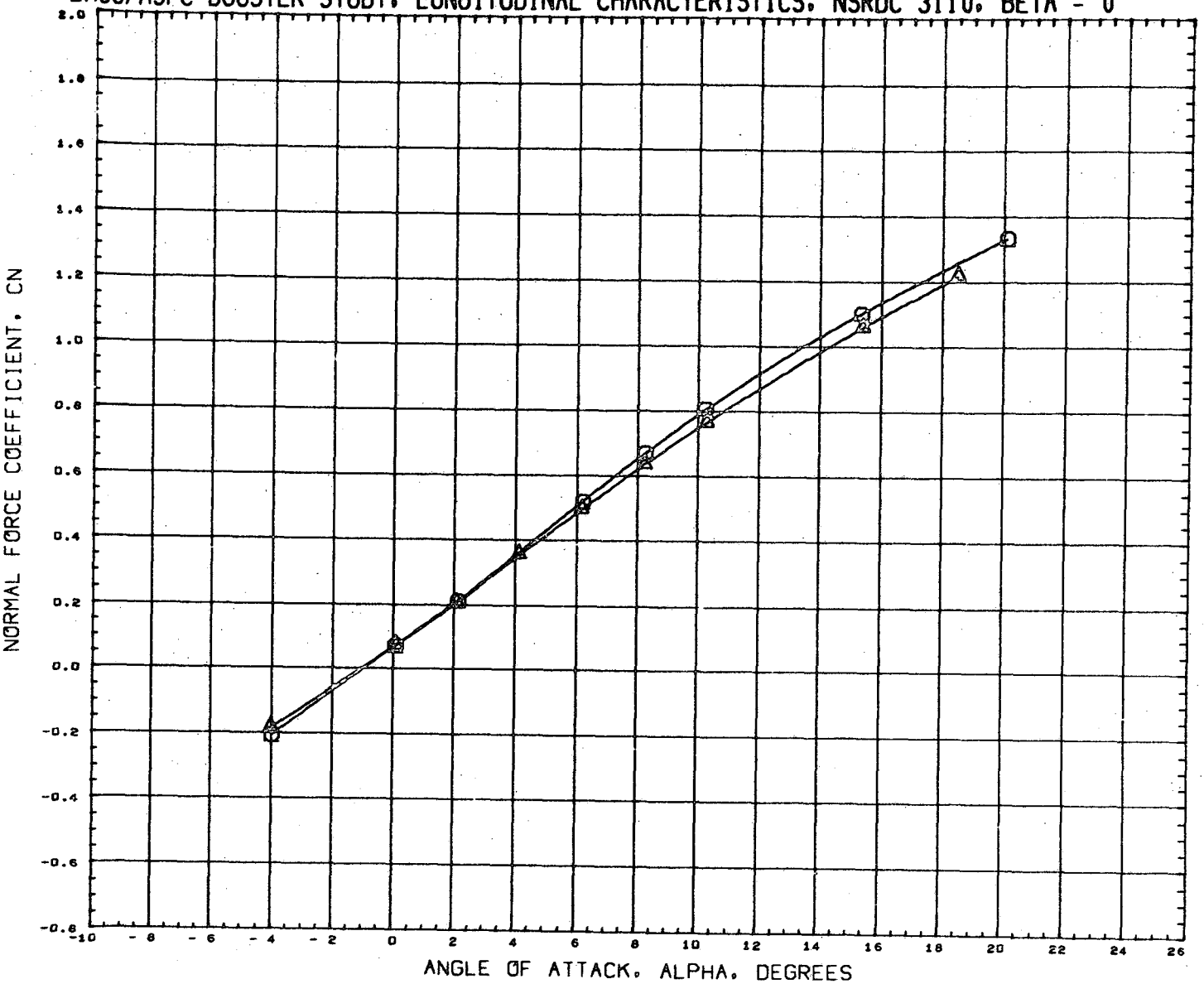



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | INCIDC | CNDFOS | INCIDW | WNGFOS |
|---|---|---|---|---|---|
| (RN2282) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 2.000 | 0.000 | 2.000 |
| (RN2314) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 2.000 | 3.000 | 2.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

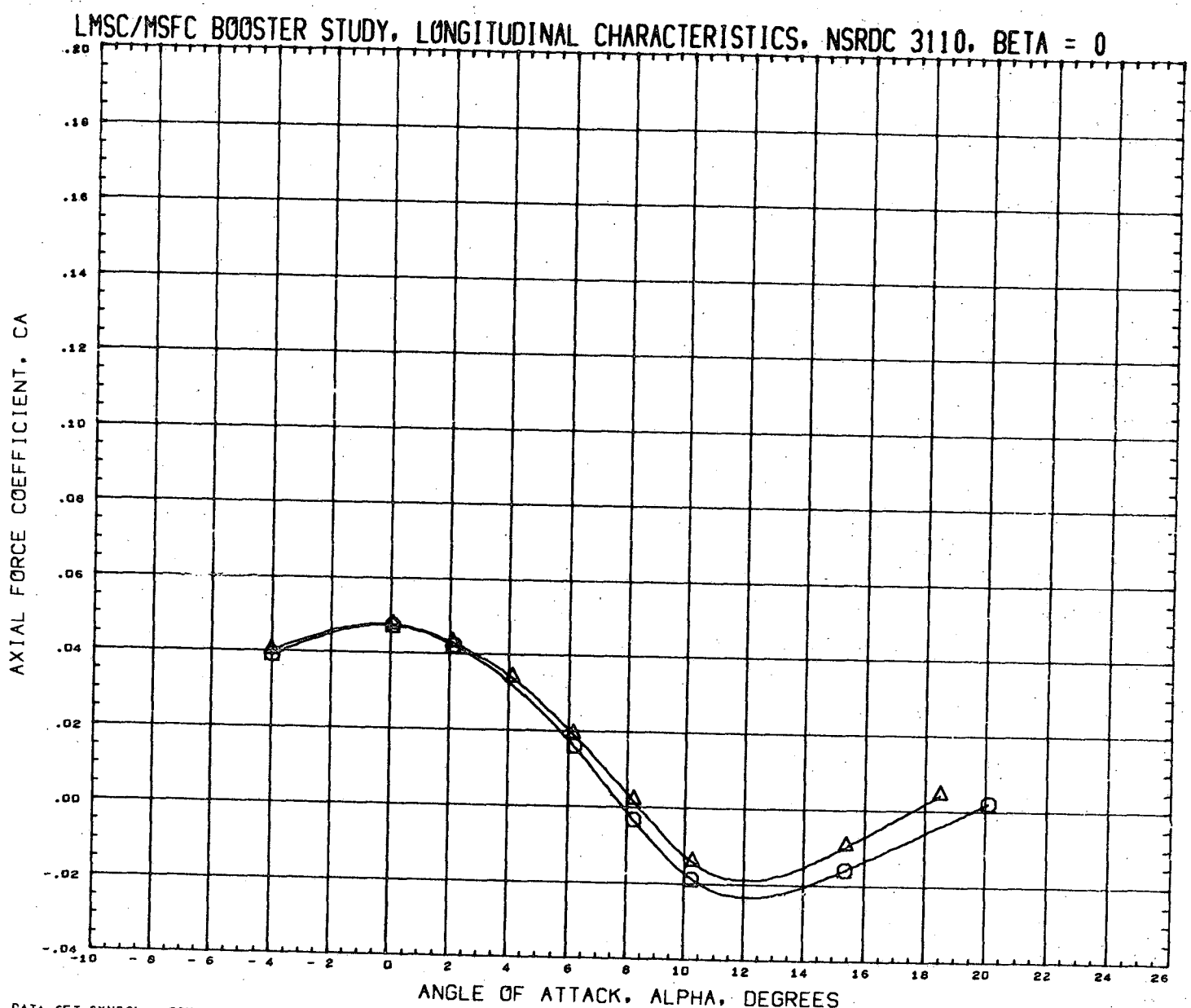
# LMSC/MSFC BOOSTER STUDY. LONGITUDINAL CHARACTERISTICS. NSRDC 3110. BETA = 0




| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|---|
| (RN2001) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 7.660 | 3.000 | 1.000 | 0.000 |
| (RN2517) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 3.000 | 1.000 | 0.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

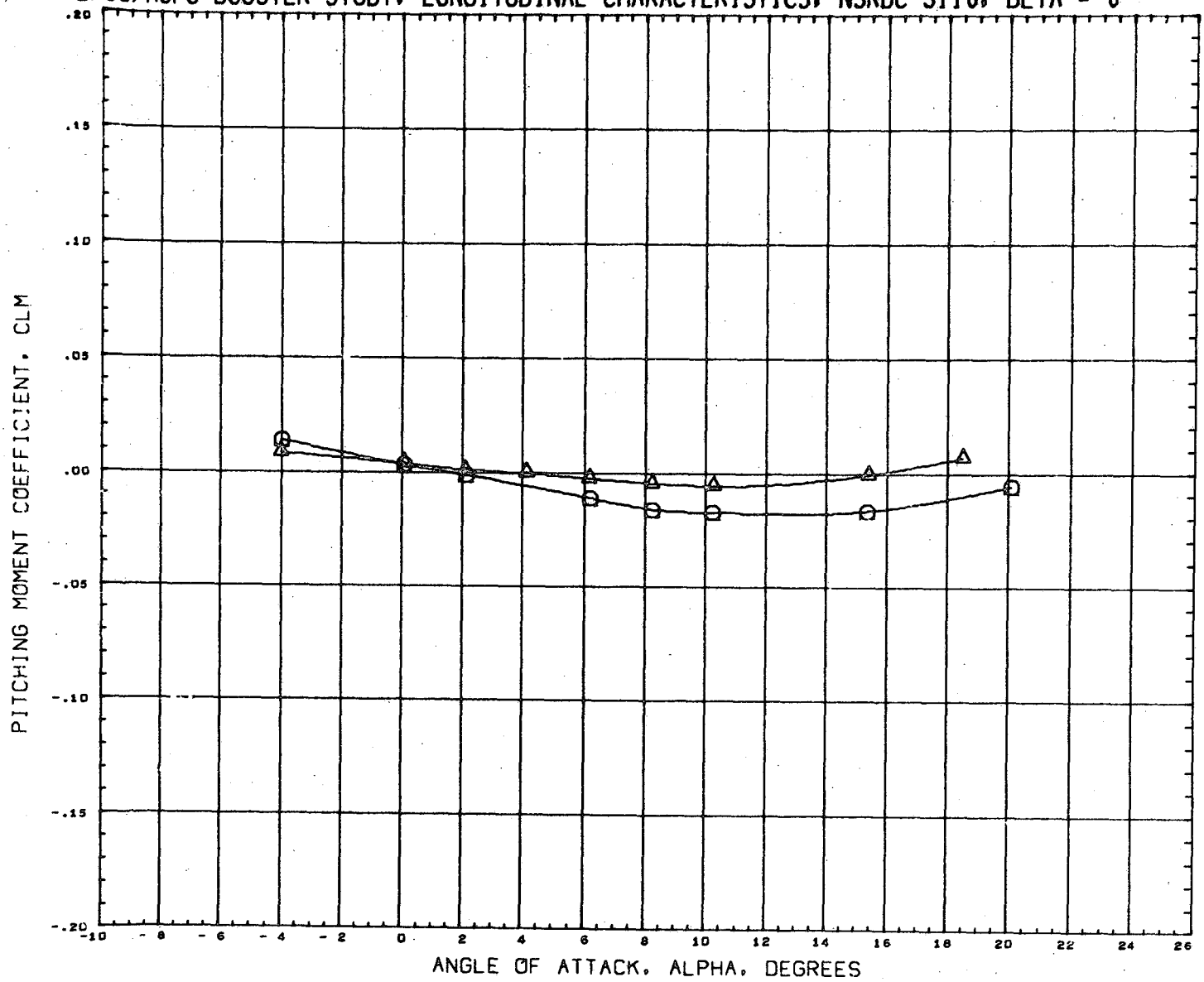



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|
| (RN2001) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 7.660 | 3.000 | 1.000 | 0.000 |
| (RN2517) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 3.000 | 1.000 | 0.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

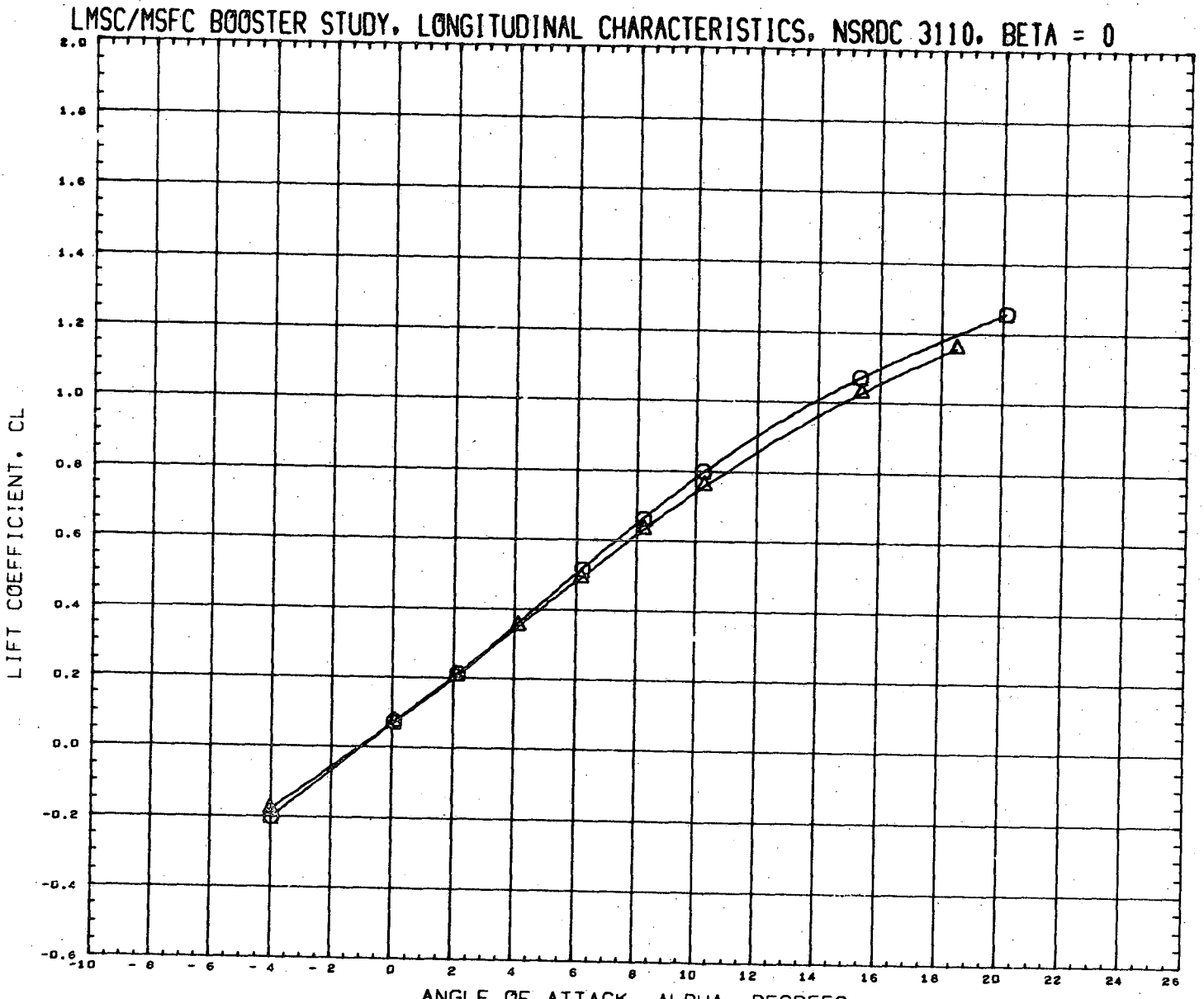
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|---|
| (RN2001) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 7.660 | 3.000 | 1.000 | 0.000 |
| (RN2517) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 3.000 | 1.000 | 0.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

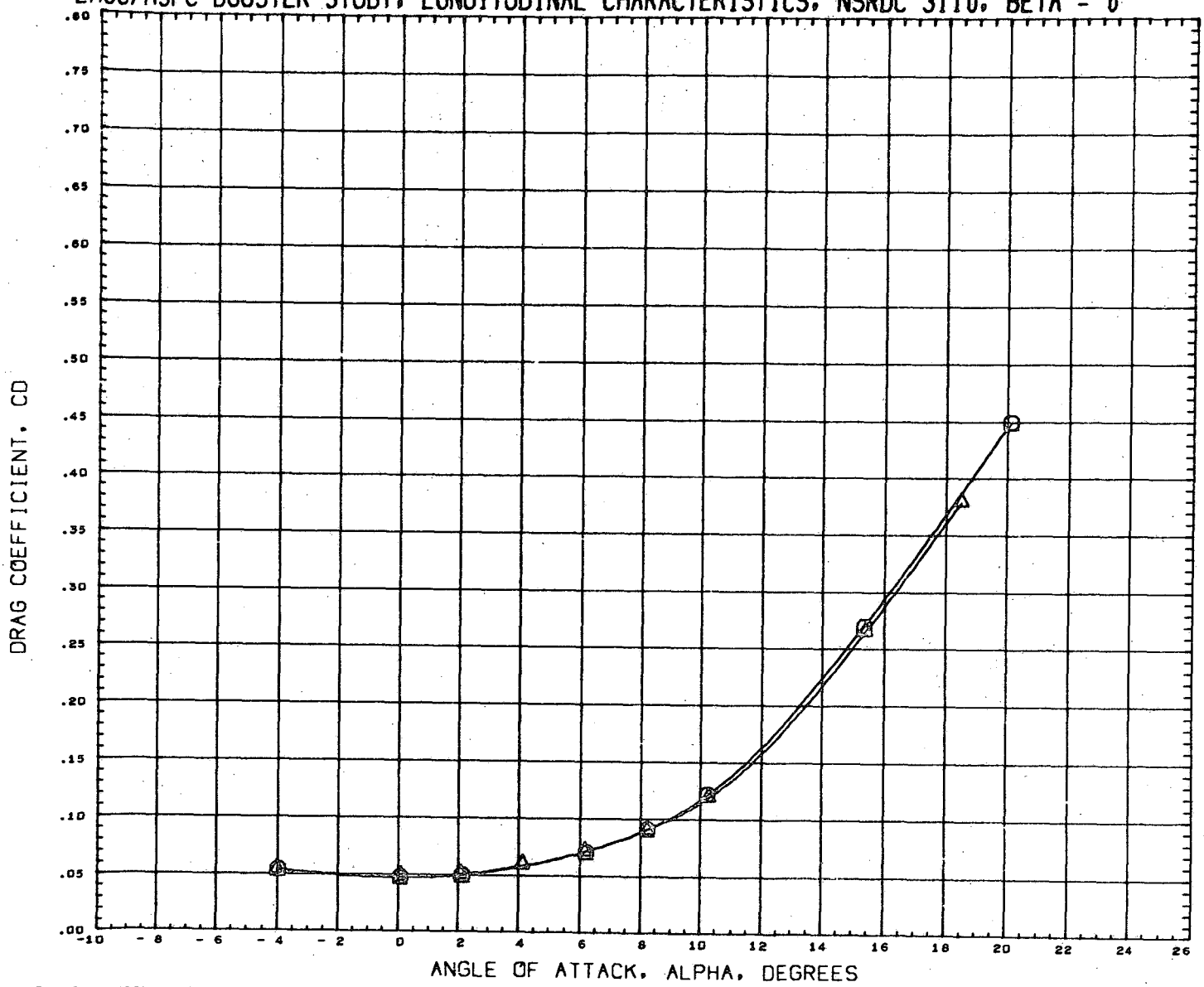



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|---|
| (RN2001) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 7.660 | 3.000 | 1.000 | 0.000 |
| (RN2517) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 3.000 | 1.000 | 0.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDFOS | INCIDW |
|---|---|---|---|---|---|---|
| (RN2001) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 7.660 | 3.000 | 1.000 | 0.000 |
| (RN2517) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 3.000 | 1.000 | 0.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

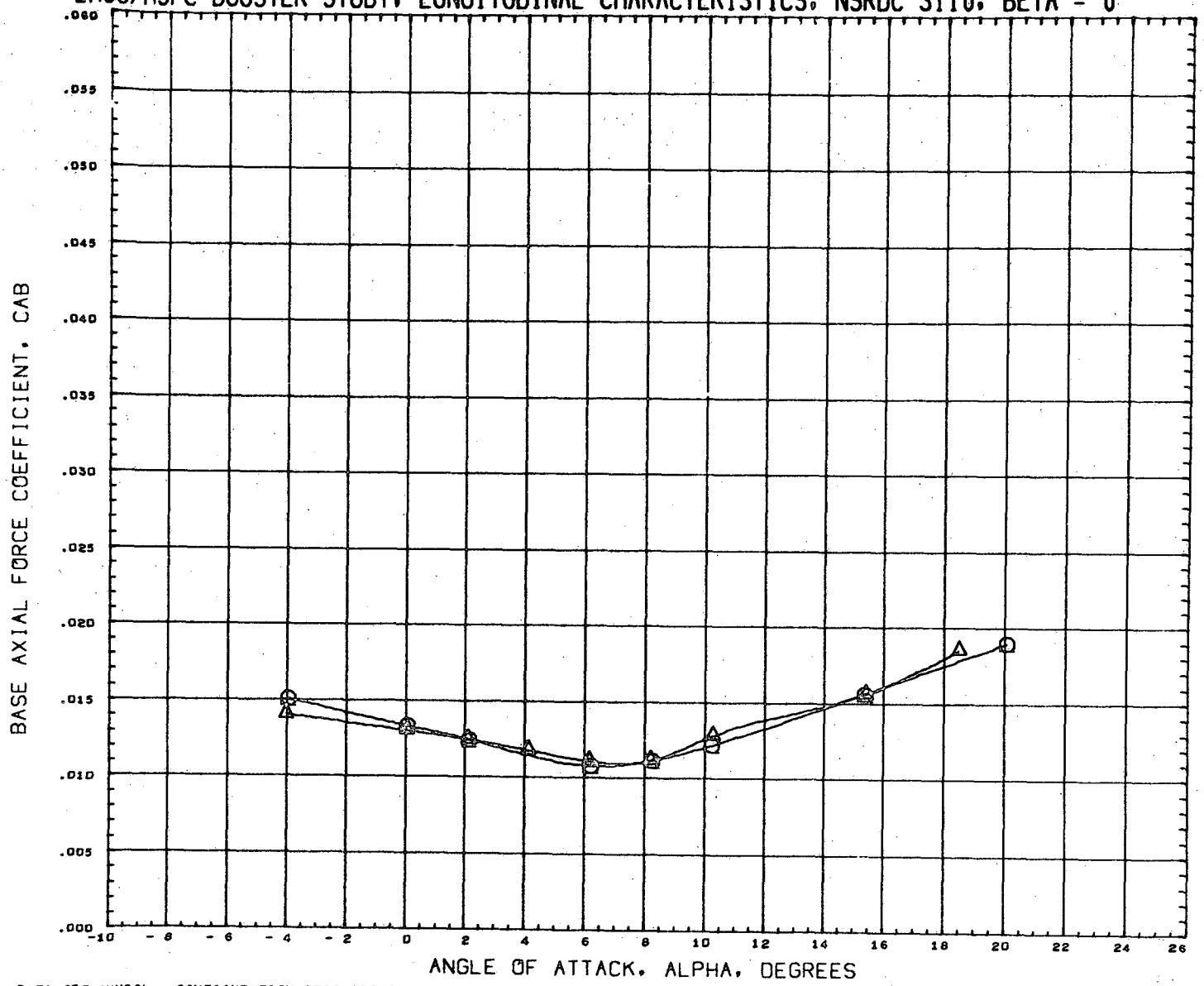
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|---|
| (RN2001) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 7.660 | 3.000 | 1.000 | 0.000 |
| (RN2517) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 3.000 | 1.000 | 0.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0



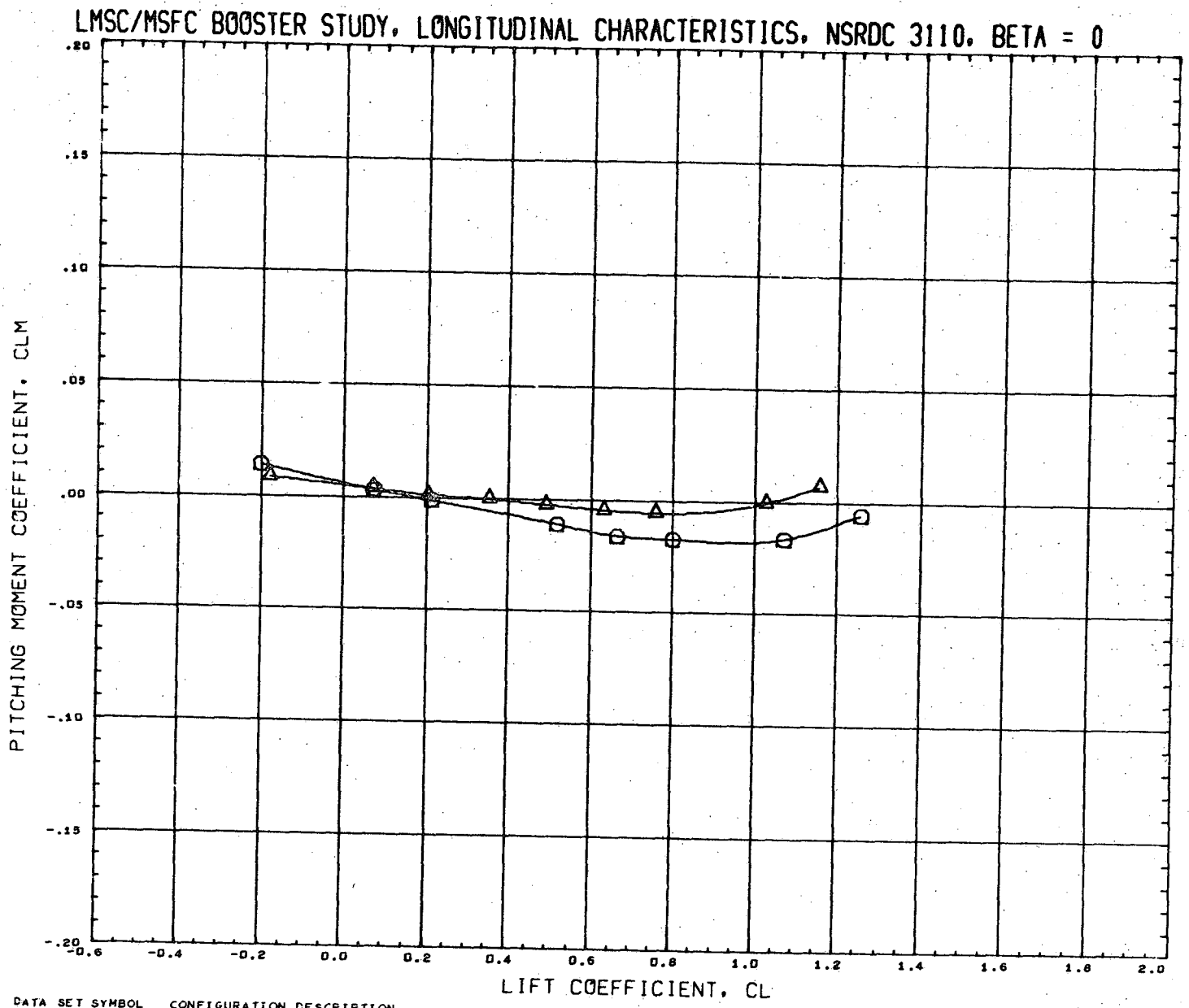

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION |
|---|---|---|
| (RN2001) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 |
| (RN2517) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 |

| DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|
| 7.660 | 3.000 | 1.000 | 0.000 |
| 15.000 | 3.000 | 1.000 | 0.000 |

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

MACH 0.381

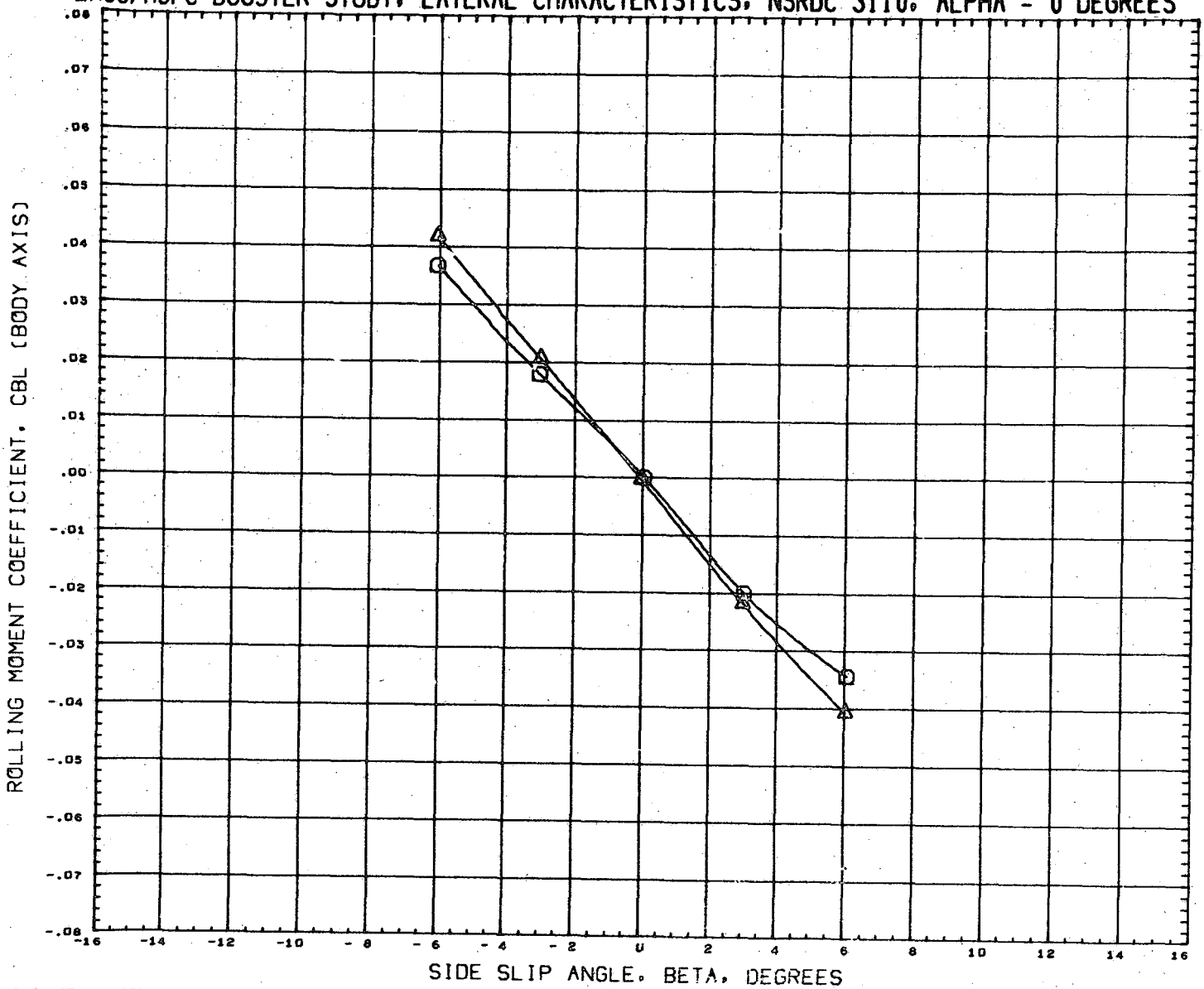



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|
| (RN2001) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 7.660 | 3.000 | 1.000 | 0.000 |
| (RN2517) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 3.000 | 1.000 | 0.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

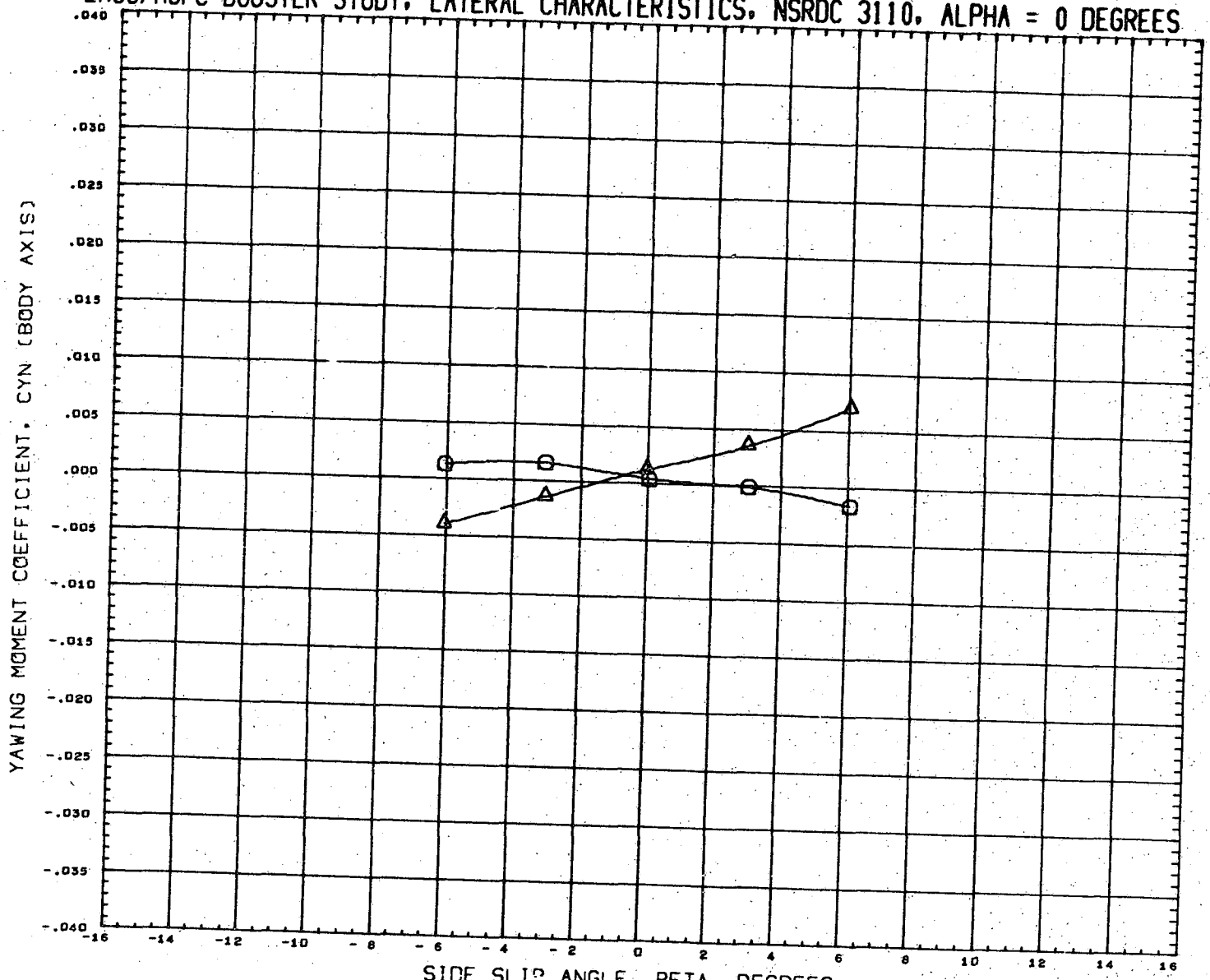



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|---|
| (RN2002) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 7.660 | 3.000 | 1.000 | 0.000 |
| (RN2518) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 3.000 | 1.000 | 0.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

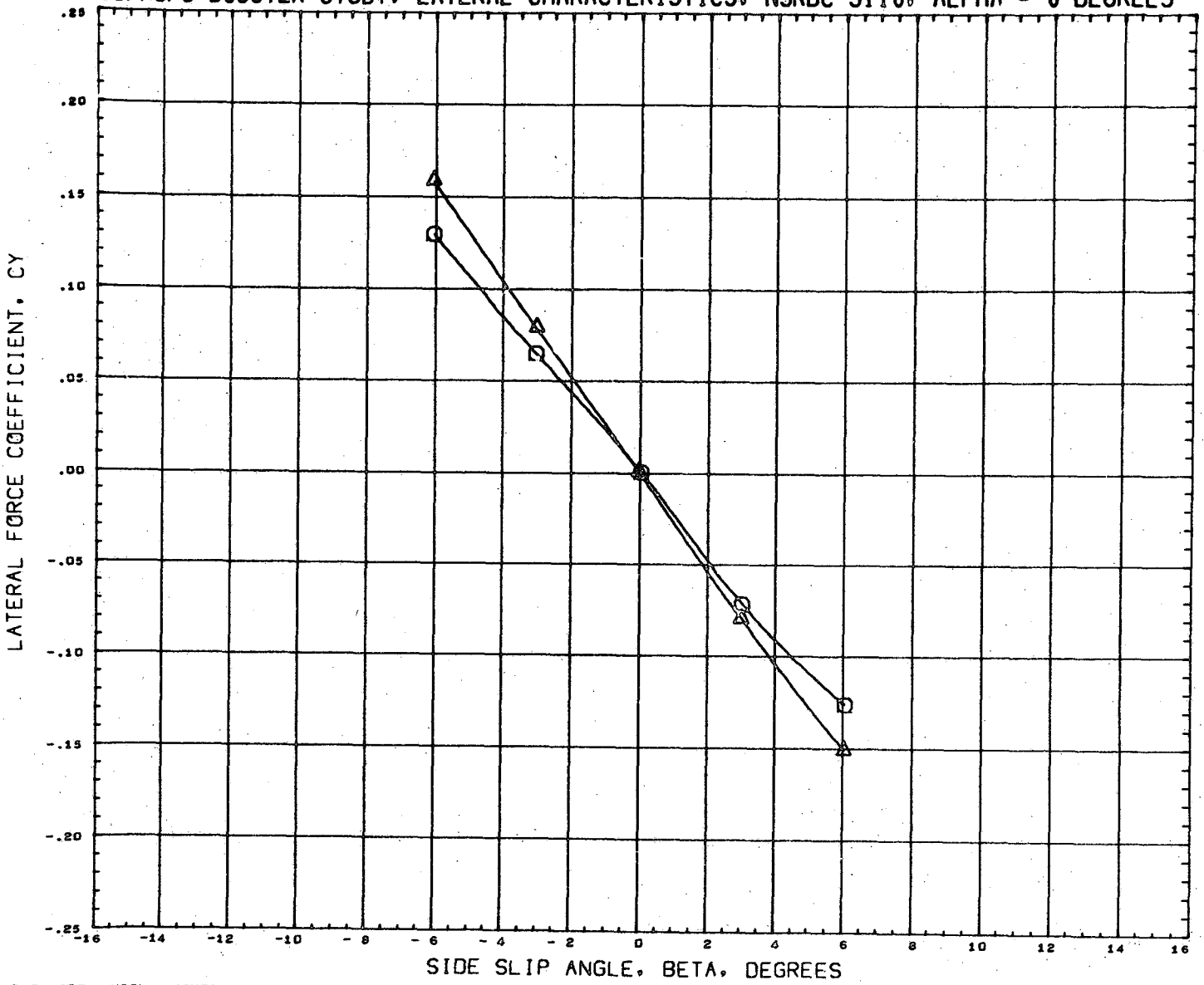



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDFOS | INCIDW |
|---|---|---|---|---|---|---|
| (RN2002) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 7.660 | 3.000 | 1.000 | 0.000 |
| (RN2516) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 3.000 | 1.000 | 0.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

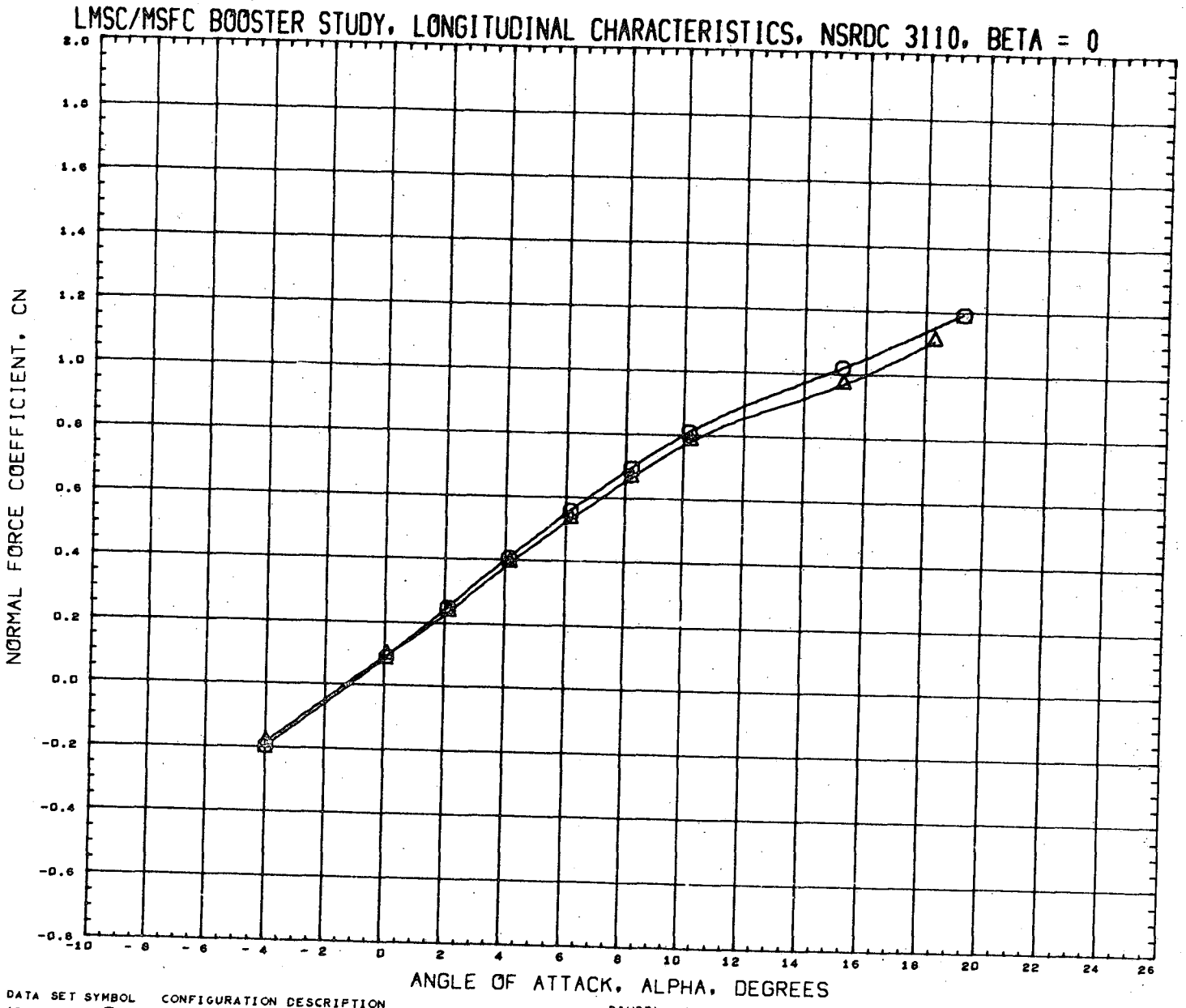
# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES




| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|
| (RN2002) ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 7.660 | 3.000 | 1.000 | 0.000 |
| (RN2518) △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 3.000 | 1.000 | 0.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

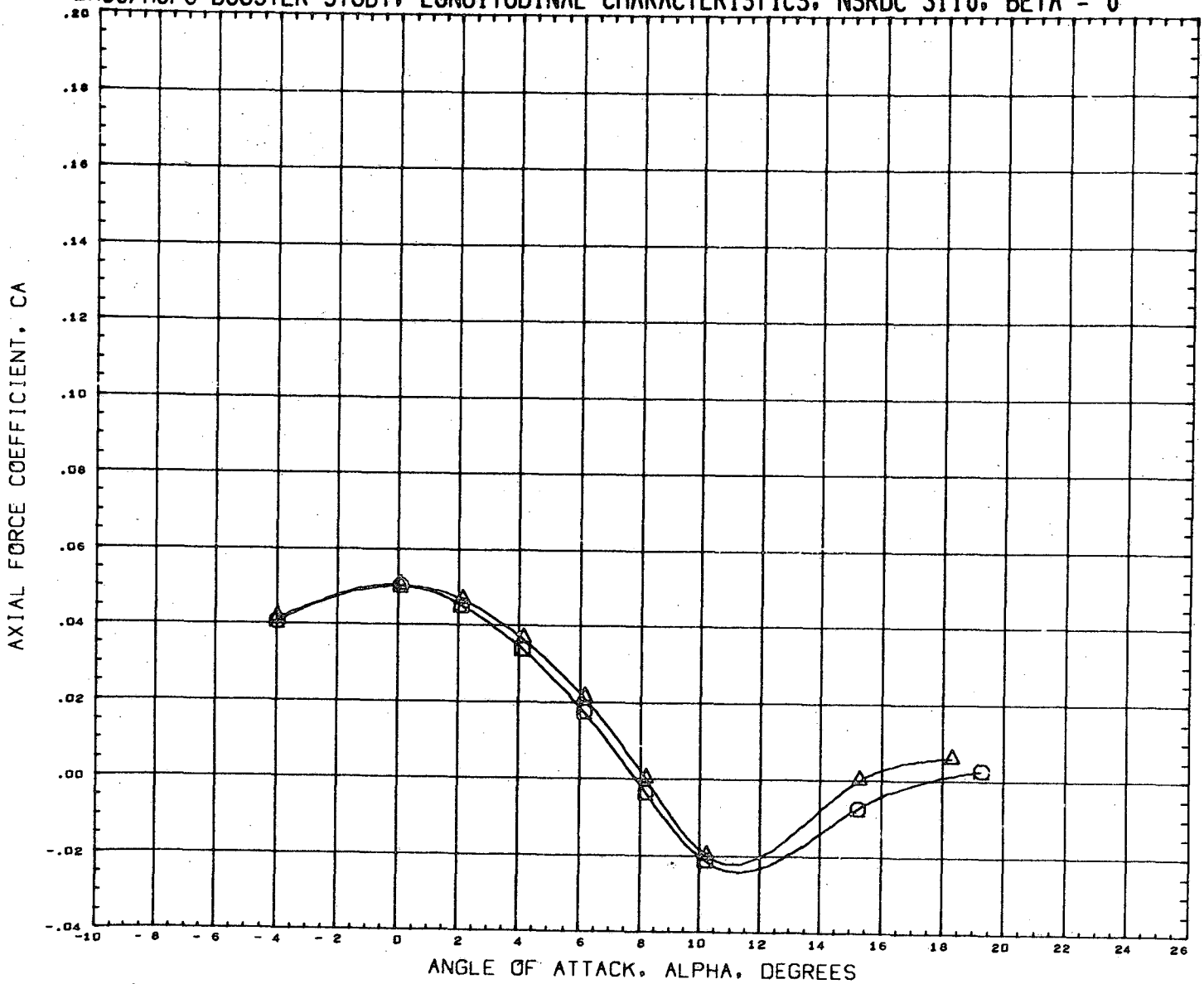



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|
| (RN2009) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 7.660 | 3.000 | 2.000 | 0.000 |
| (RN2521) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 3.000 | 2.000 | 0.000 |

MACH 0.361

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

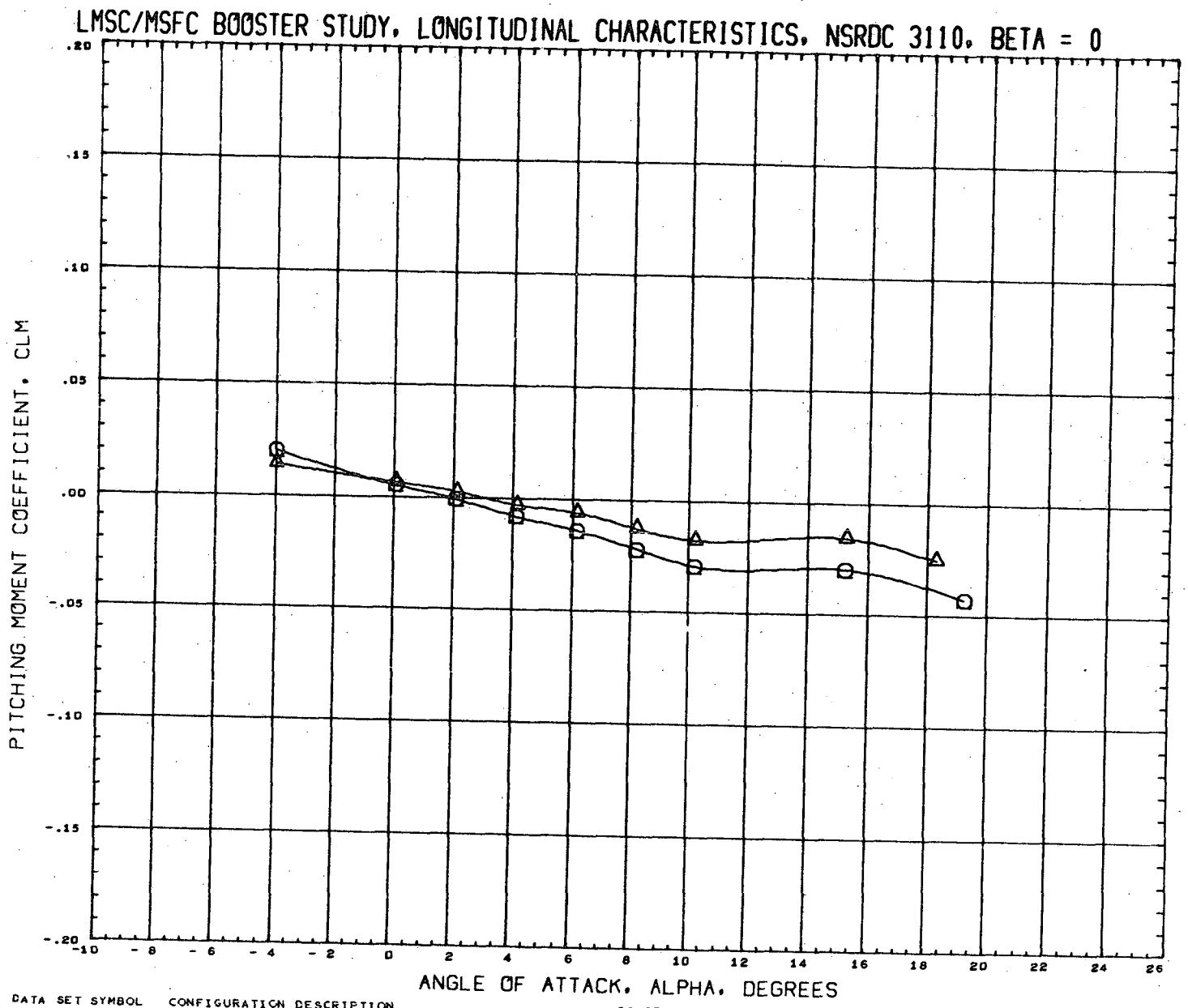
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|---|
| (RN2009) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 7.660 | 3.000 | 2.000 | 0.000 |
| (RN2521) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 3.000 | 2.000 | 0.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

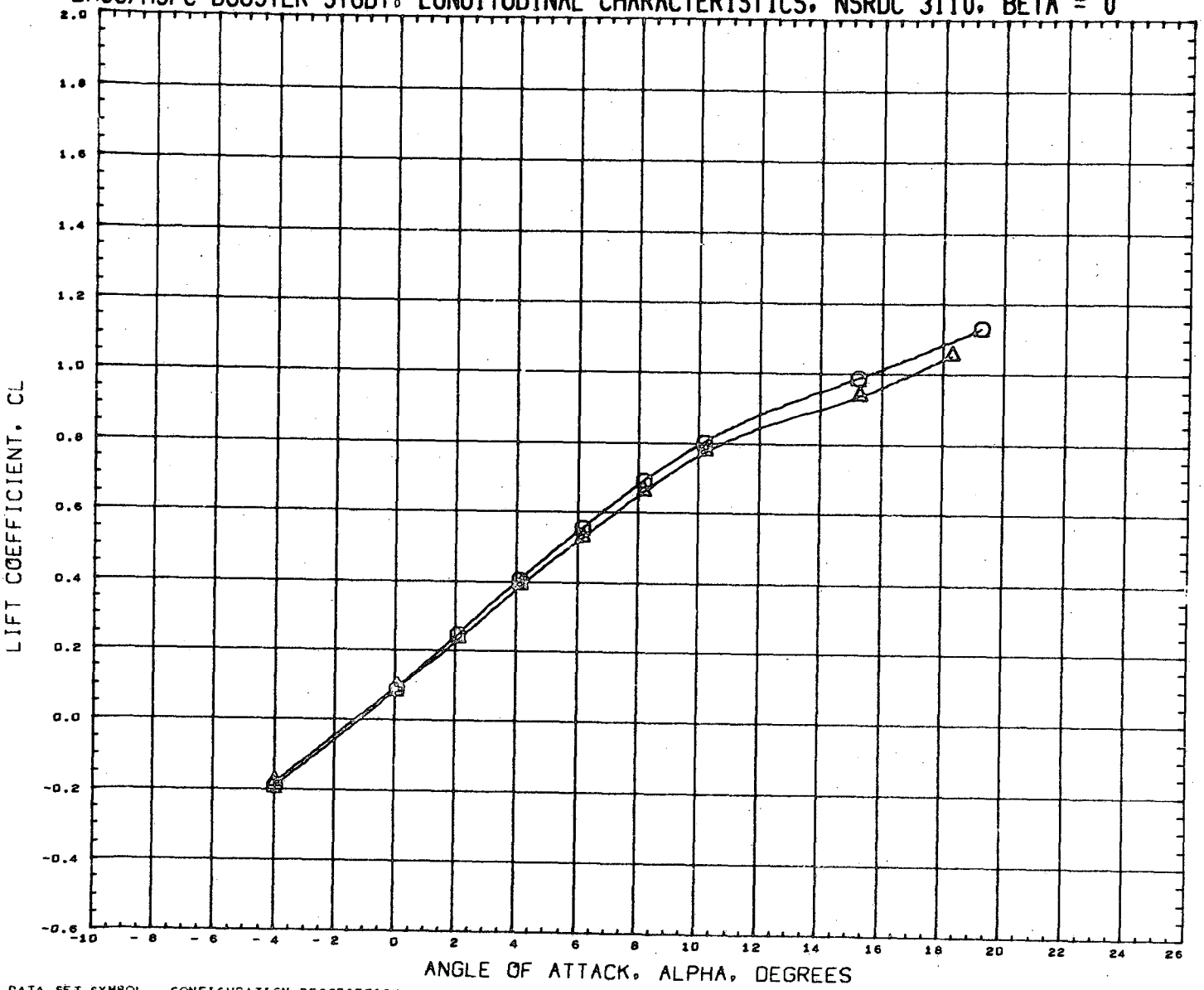



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|
| (RN2009) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 7.660 | 3.000 | 2.000 | 0.000 |
| (RN2521) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 3.000 | 2.000 | 0.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY. LONGITUDINAL CHARACTERISTICS. NSRDC 3110. BETA = 0



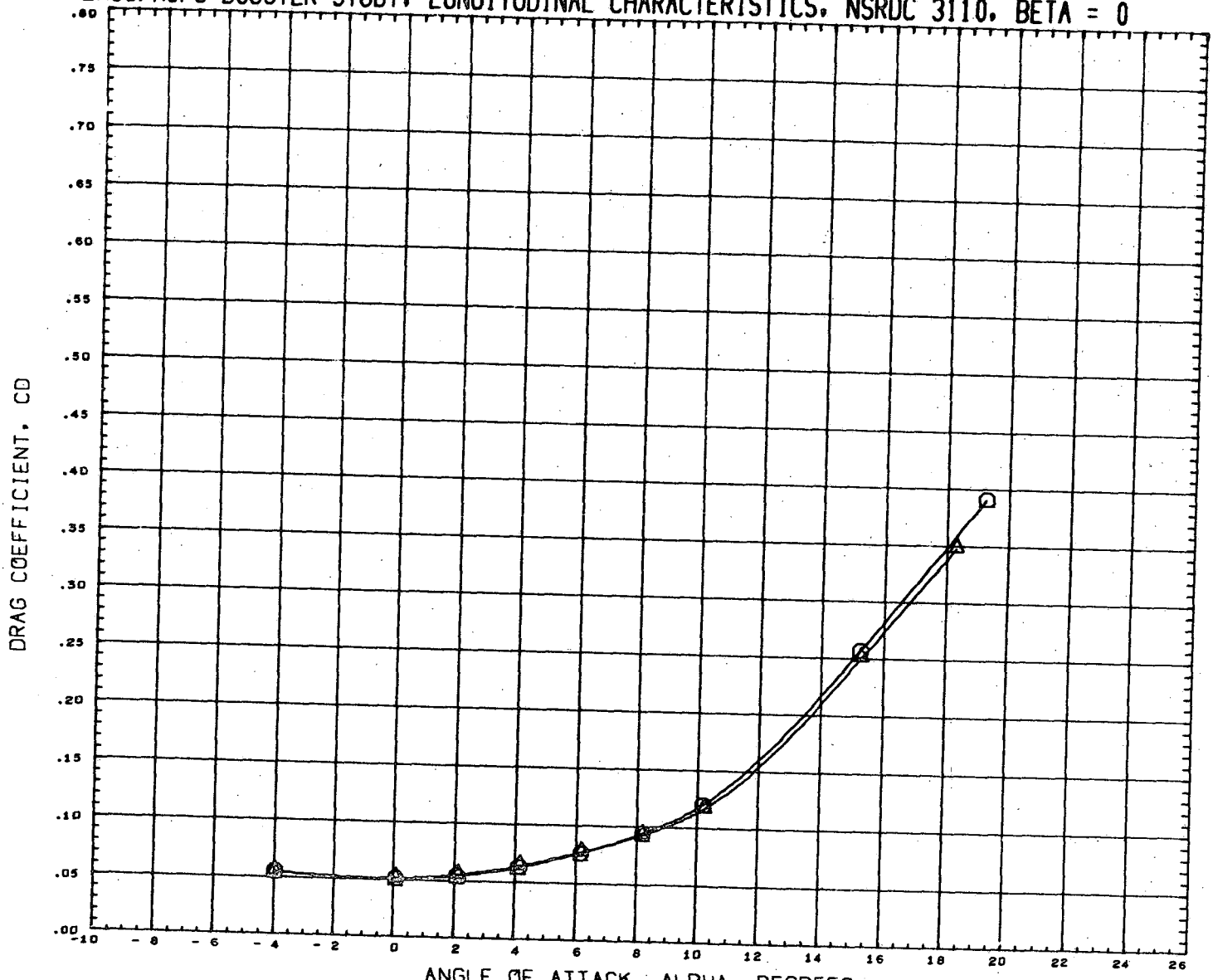

| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION |
|---|---|---|
| (RN2009) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 |
| (RN2521) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 |

| DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|
| 7.660 | 3.000 | 2.000 | 0.000 |
| 15.000 | 3.000 | 2.000 | 0.000 |

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

MACH 0.381

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

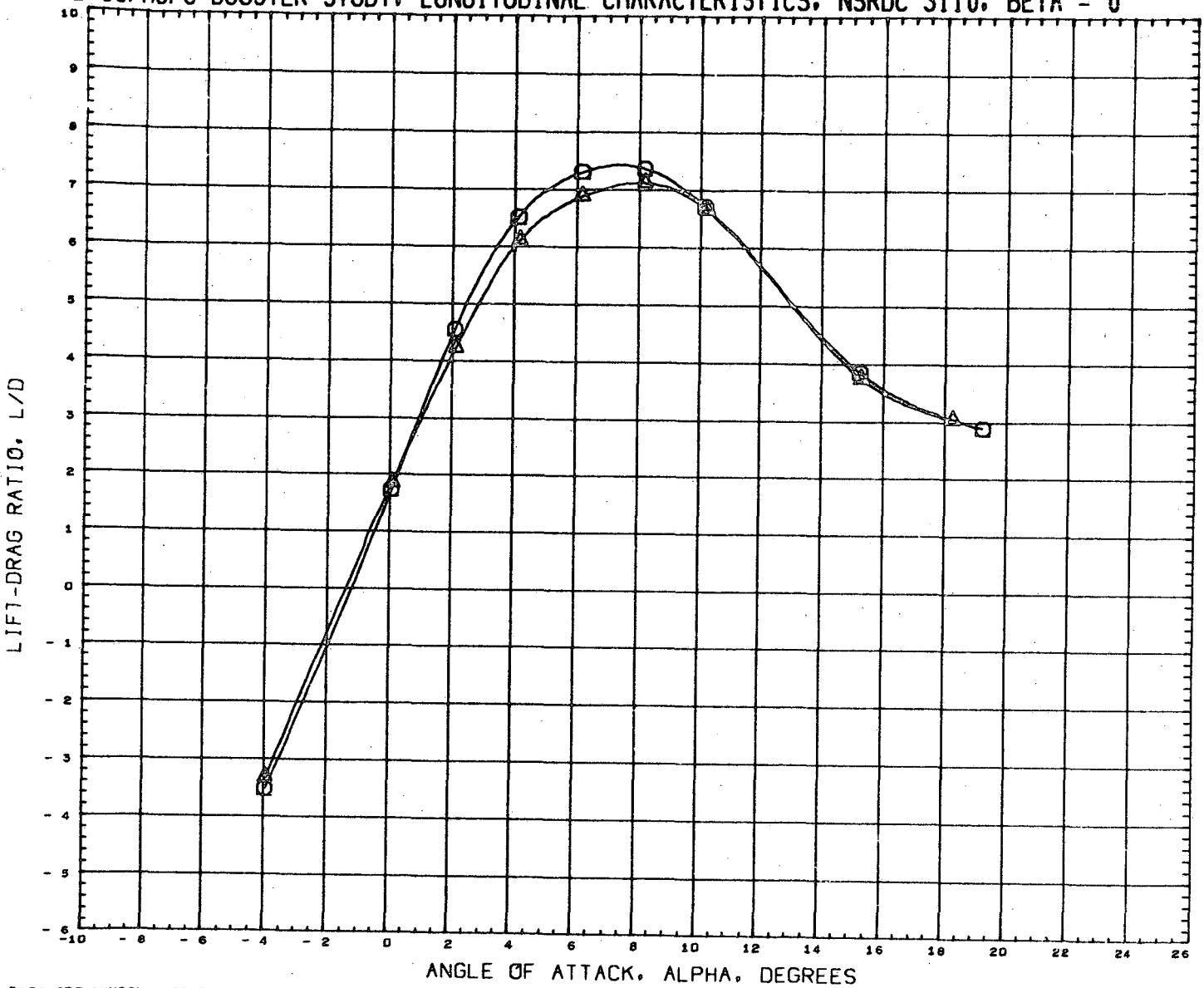



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDFOS | INCIDW |
|---|---|---|---|---|---|
| (RN2009) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 7.660 | 3.000 | 2.000 | 0.000 |
| (RN2521) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 3.000 | 2.000 | 0.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0



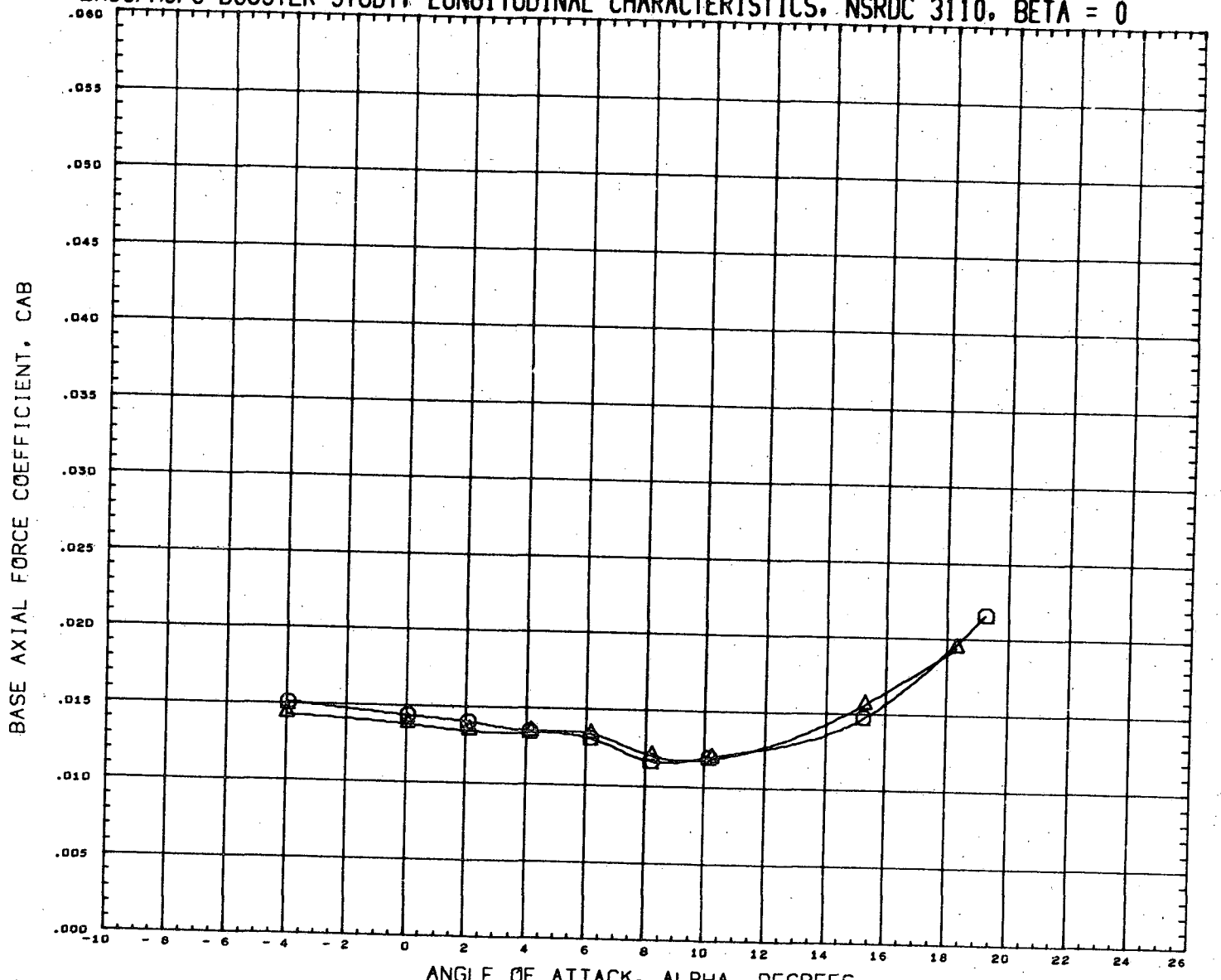

| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|---|
| (RN2009) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 7.660 | 3.000 | 2.000 | 0.000 |
| (RN2521) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 3.000 | 2.000 | 0.000 |

MACH 0.381

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0



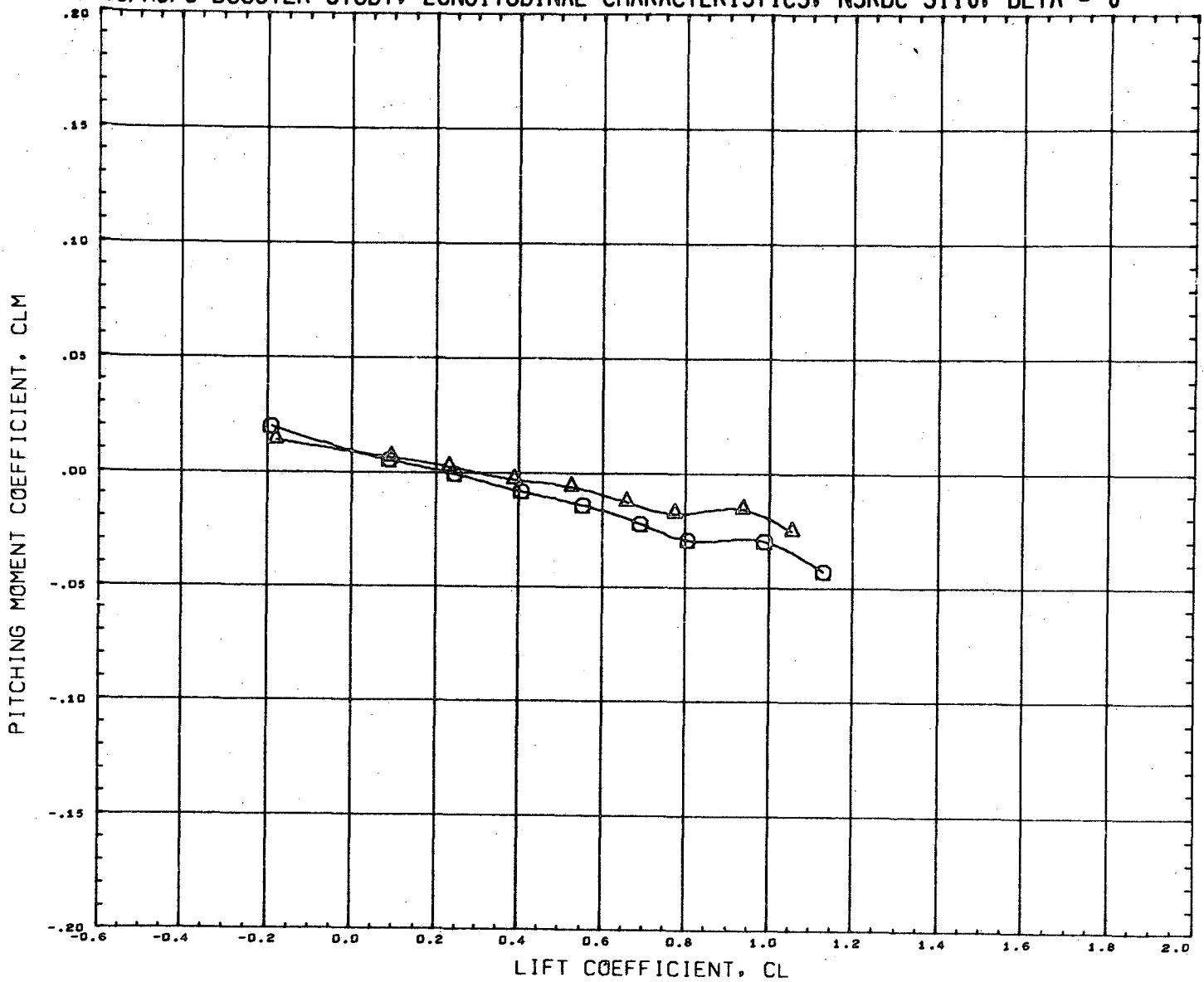

| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION |
|---|---|---|
| (RN2009) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 |
| (RN2521) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 |

| DIHCRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|
| 7.660 | 3.000 | 2.000 | 0.000 |
| 15.000 | 3.000 | 2.000 | 0.000 |

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

MACH 0.381

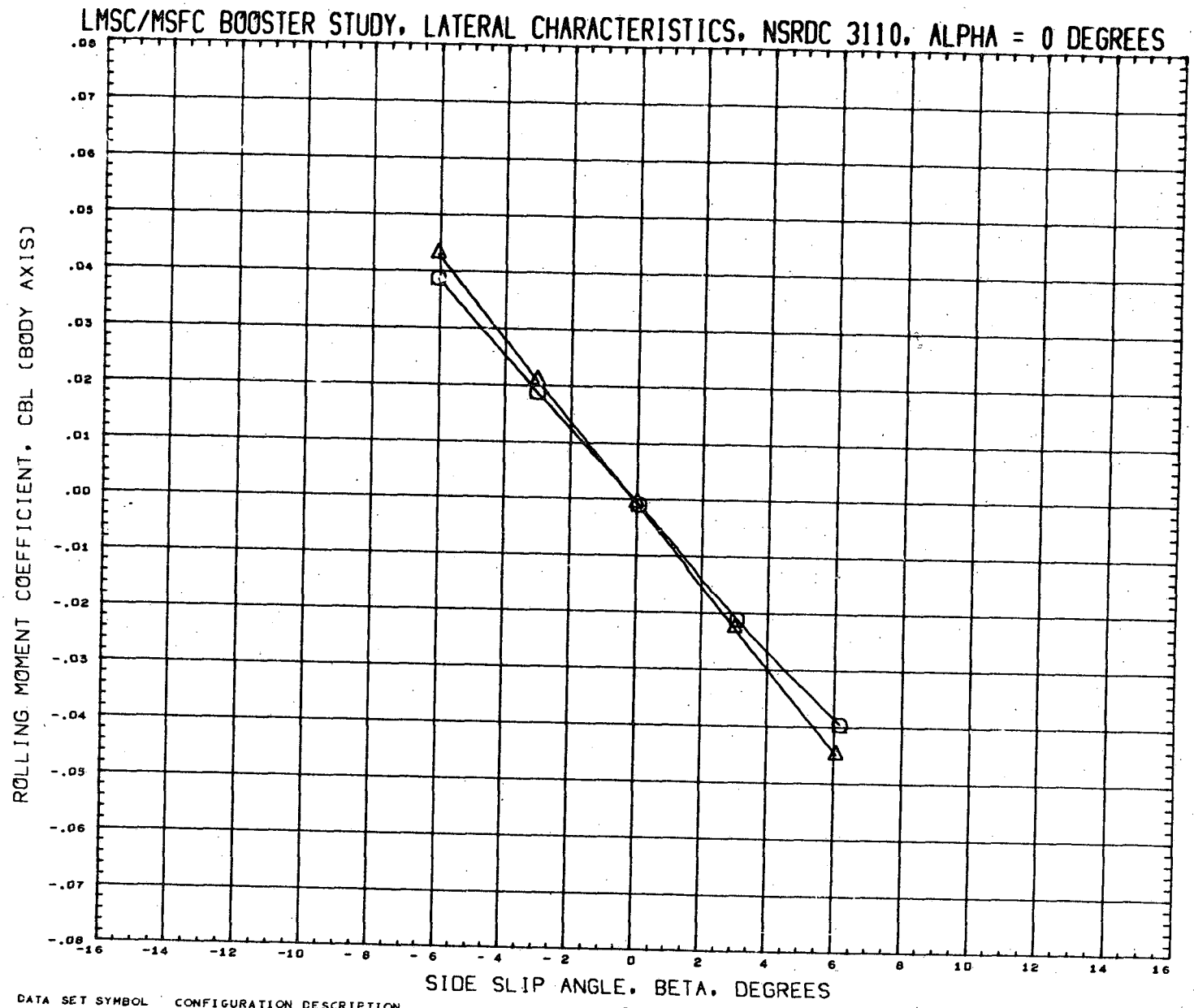
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|
| (RN2009) ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 7.660 | 3.000 | 2.000 | 0.000 |
| (RN2521) △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 3.000 | 2.000 | 0.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

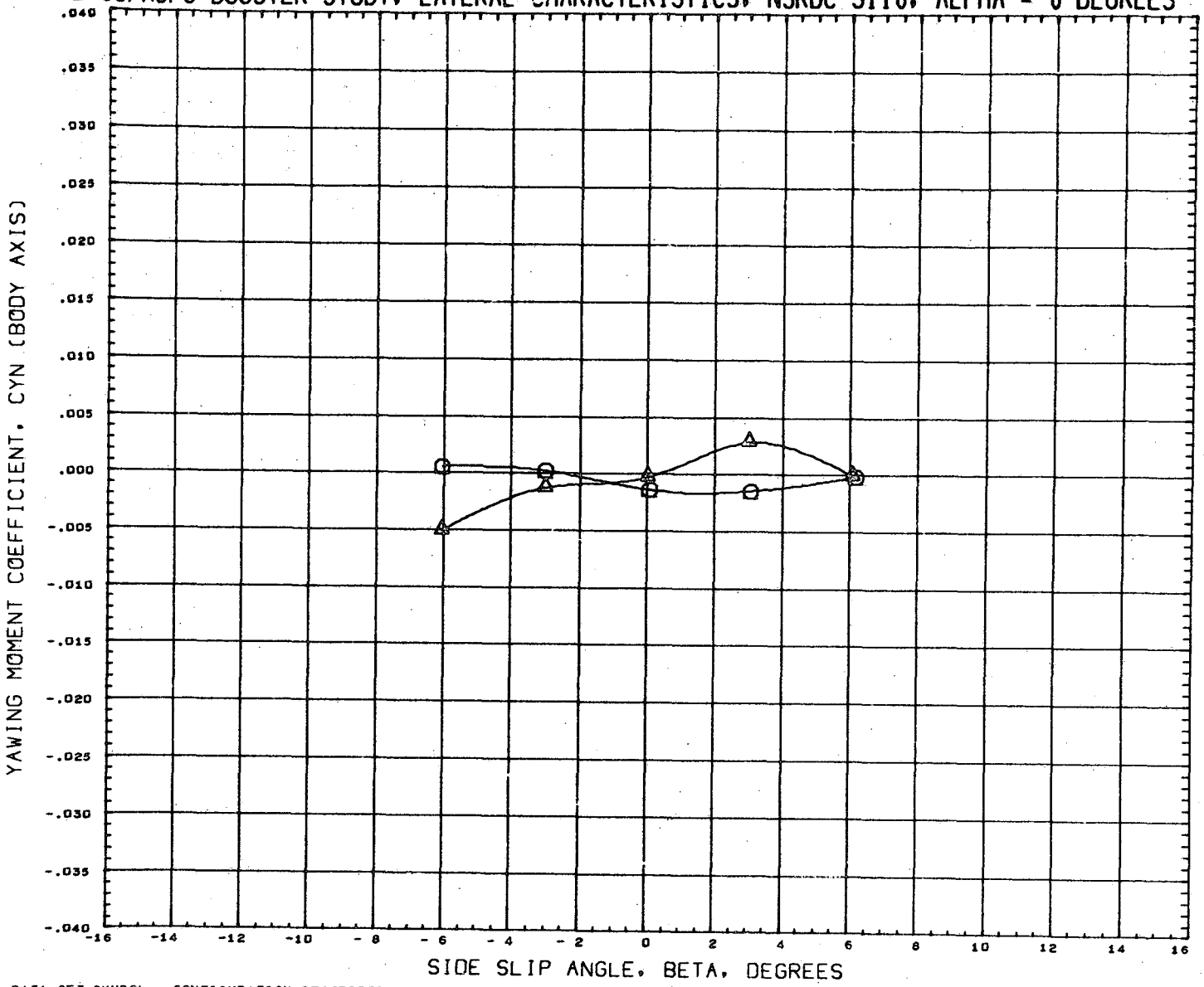



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|
| (RN2010) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 7.660 | 3.000 | 2.000 | 0.000 |
| (RN2522) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 3.000 | 2.000 | 0.000 |

MACH 0.382

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

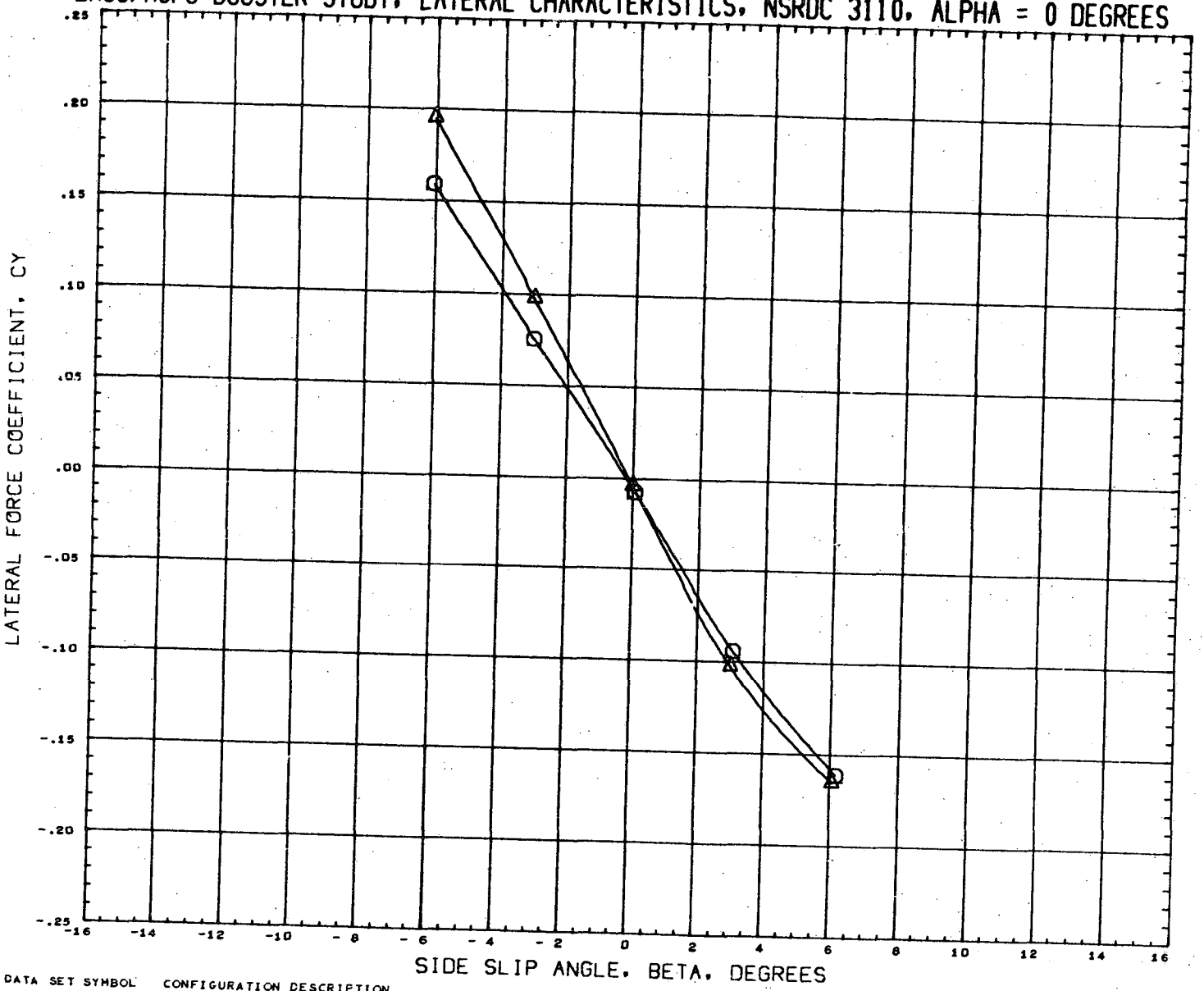



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|---|
| (RN2010) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 7.660 | 3.000 | 2.000 | 0.000 |
| (RN2522) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 3.000 | 2.000 | 0.000 |

MACH 0.382

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

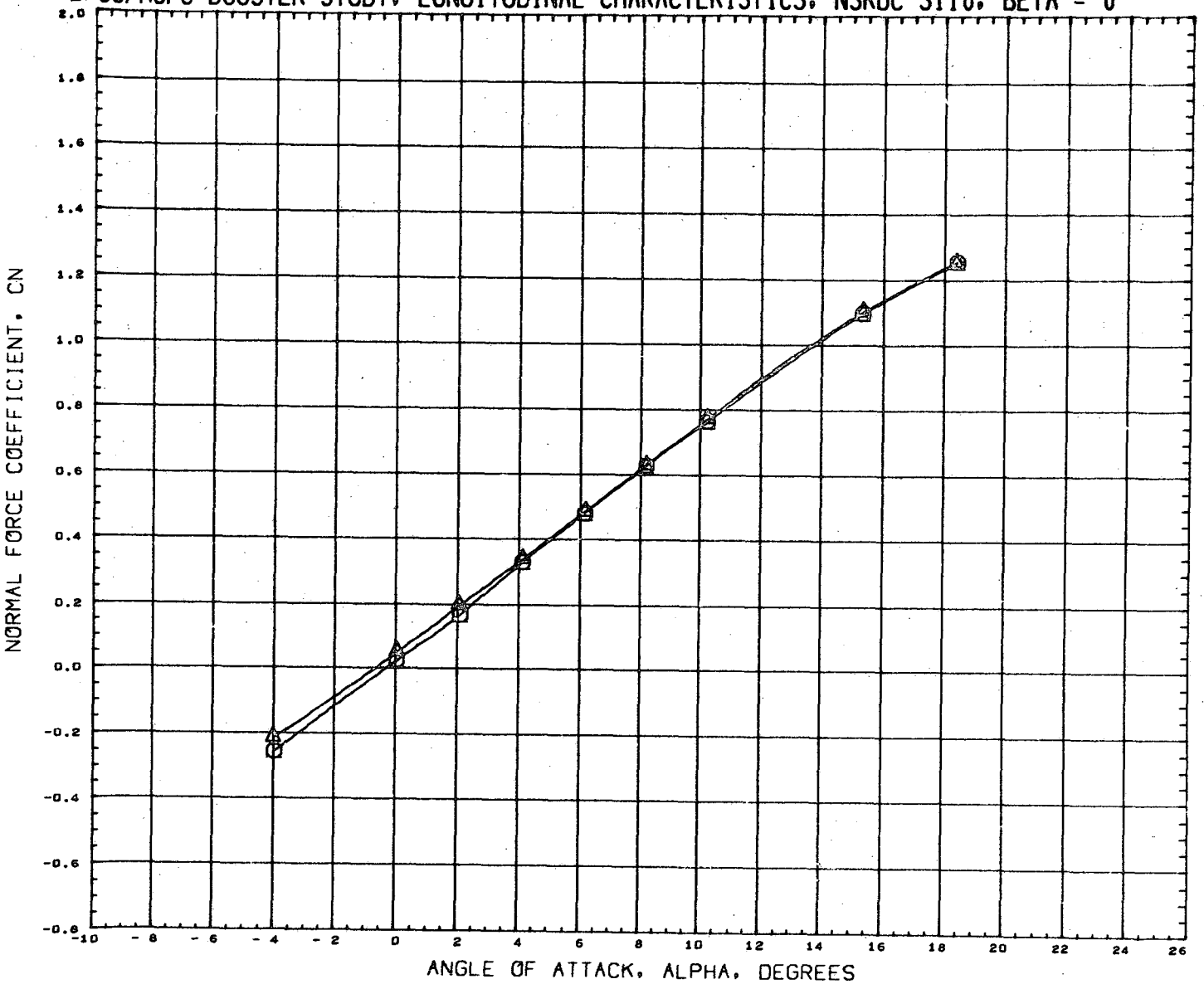



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|
| (RN2010) ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 7.660 | 3.000 | 2.000 | 0.000 |
| (RN2522) △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V1 | 15.000 | 3.000 | 2.000 | 0.000 |

MACH 0.382

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

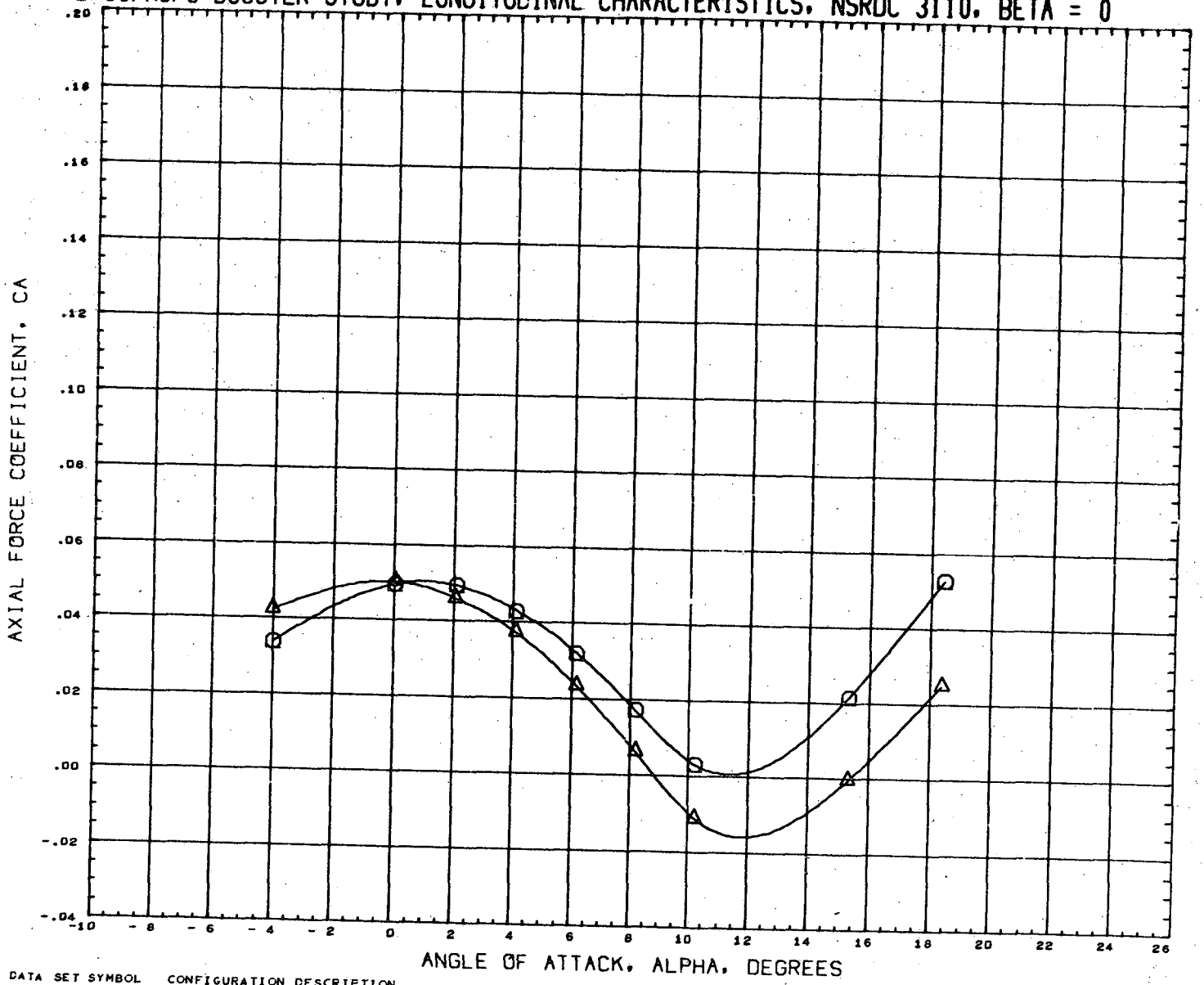



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|---|
| (RN2193) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 7.660 | 3.000 | 1.000 | 0.000 |
| (RN2525) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 3.000 | 1.000 | 0.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

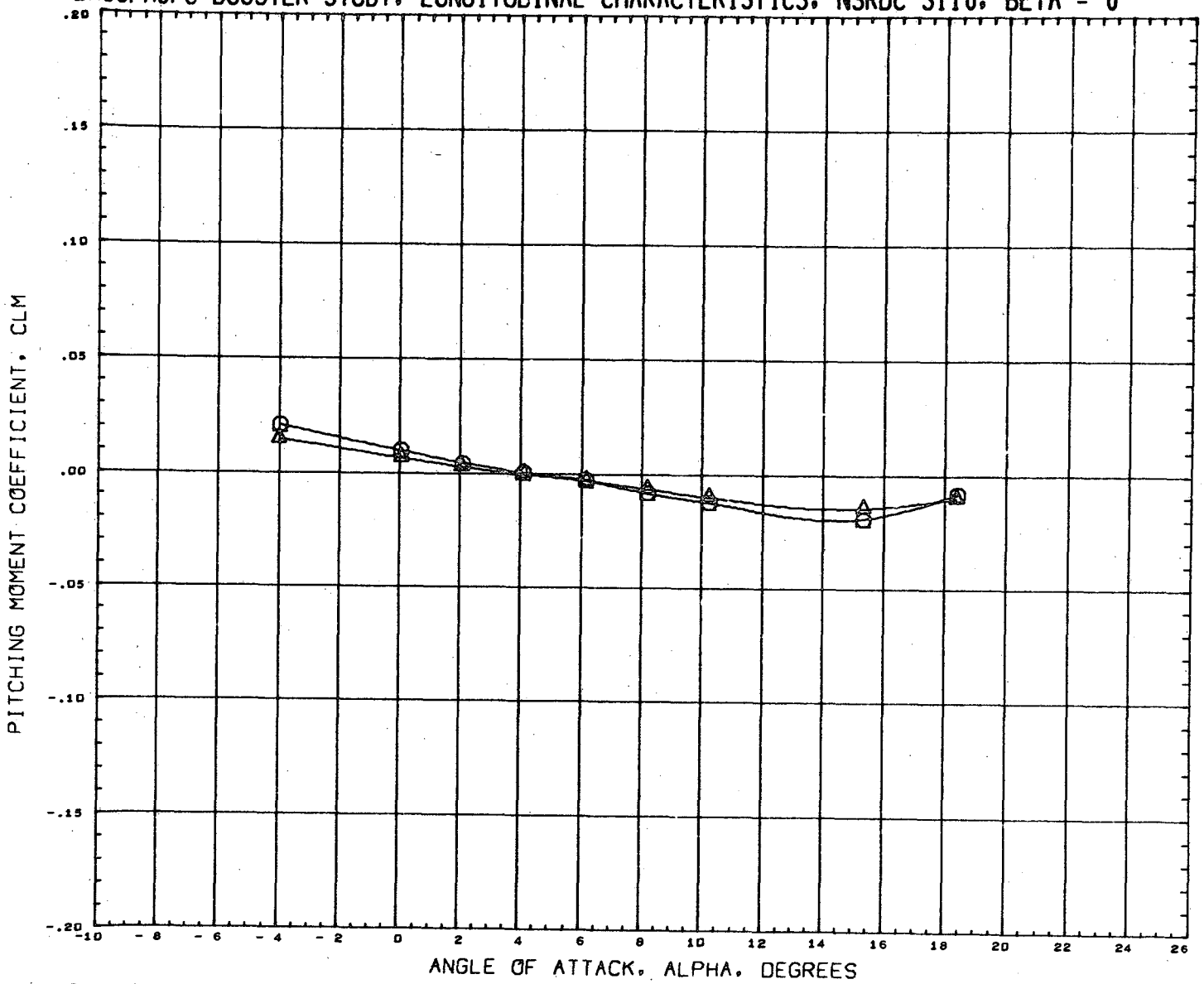



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|---|
| (RN2193) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 7.660 | 3.000 | 1.000 | 0.000 |
| (RN2525) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 3.000 | 1.000 | 0.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

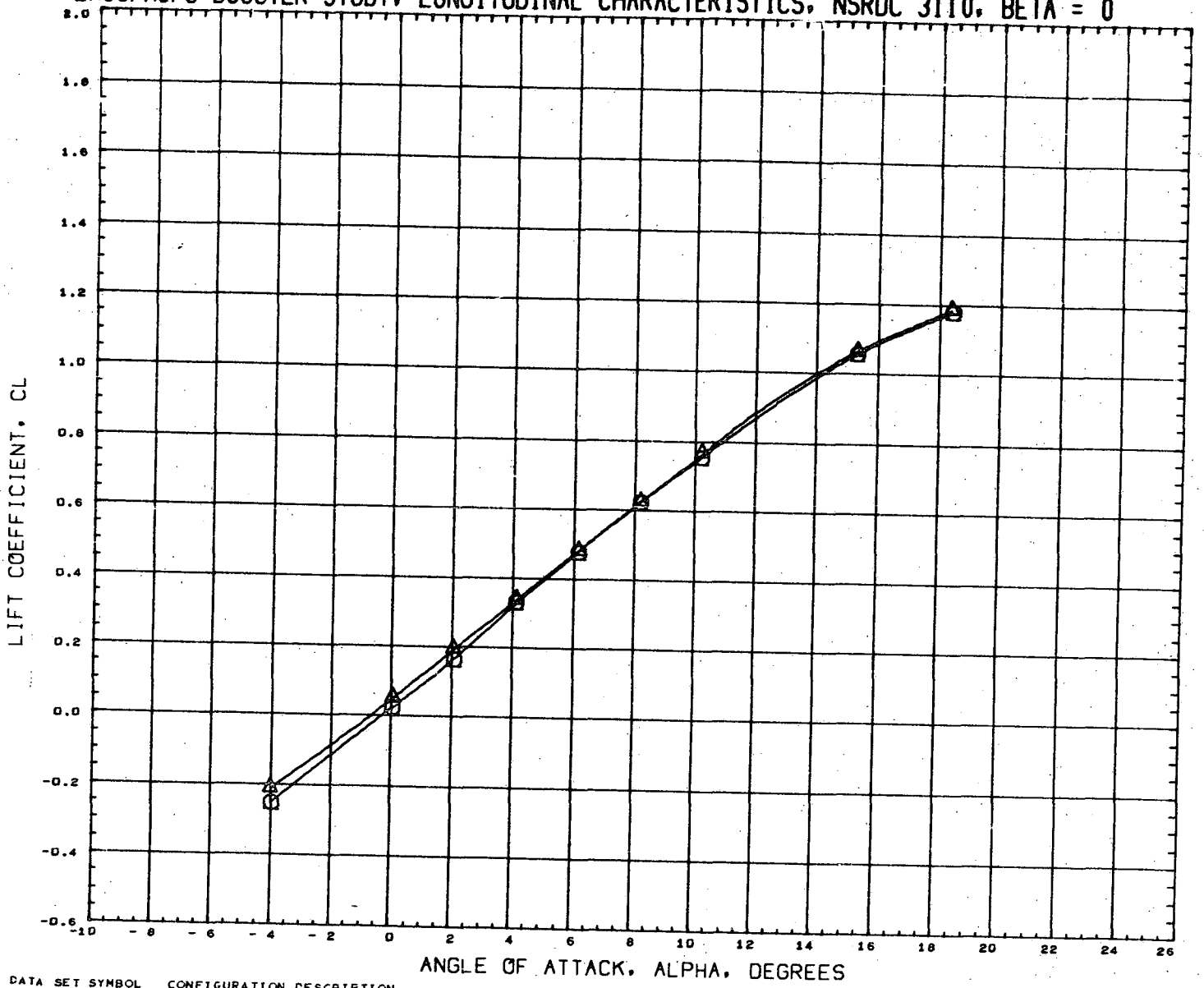



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|---|
| (RN2193) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 7.660 | 3.000 | 1.000 | 0.000 |
| (RN2525) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 3.000 | 1.000 | 0.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

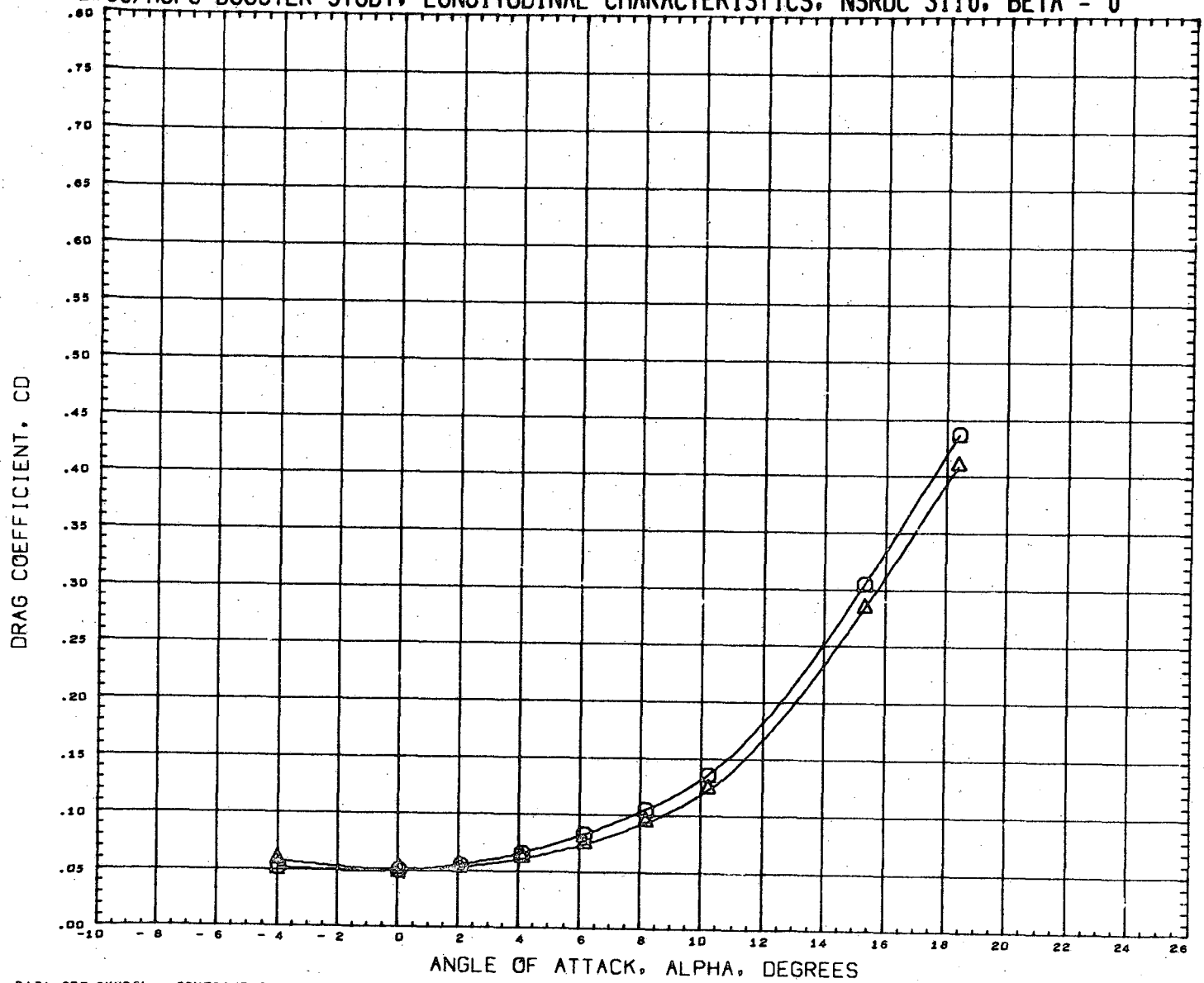



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|---|
| (RN2193) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 7.660 | 3.000 | 1.000 | 0.000 |
| (RN2525) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 3.000 | 1.000 | 0.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

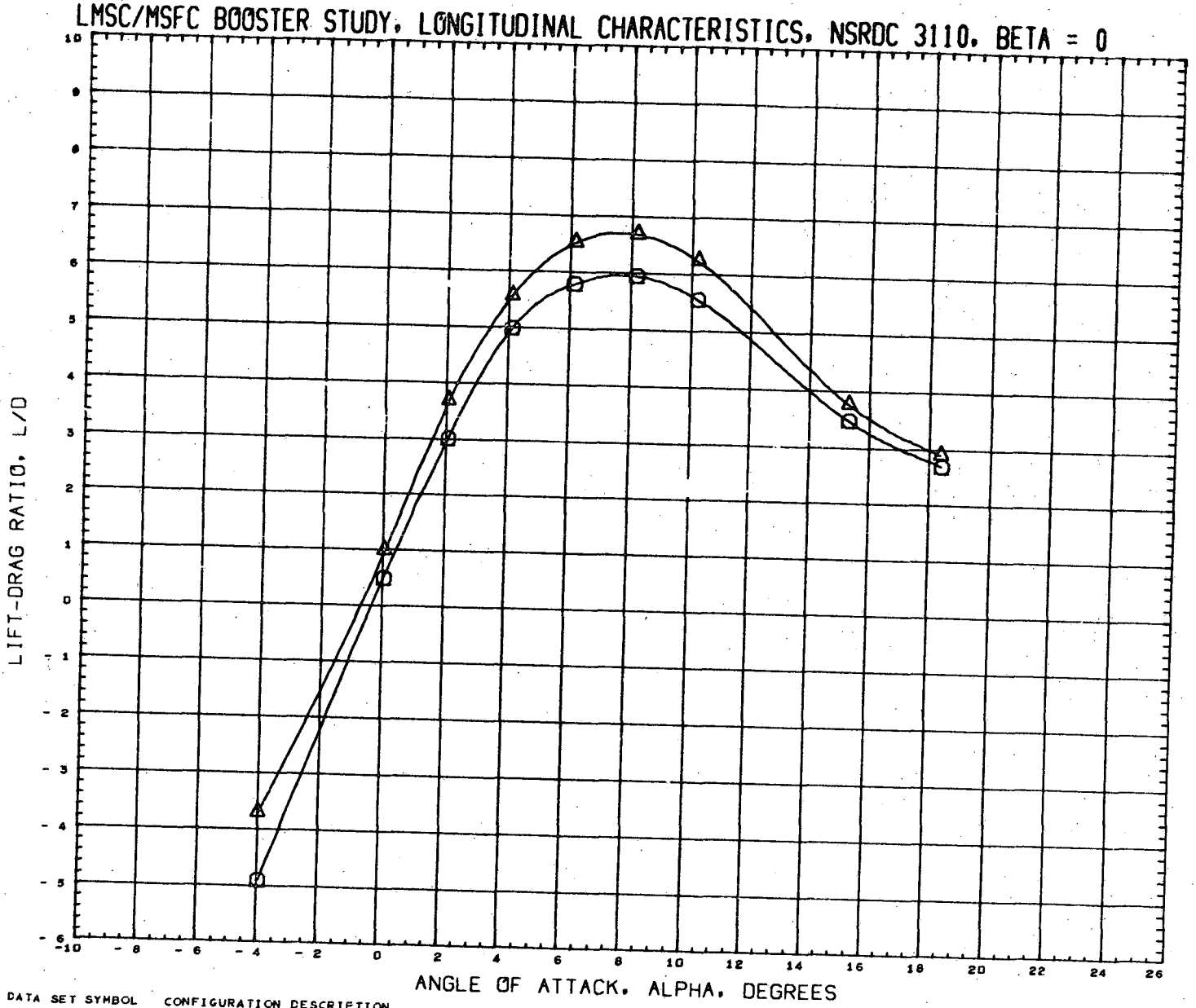
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|---|
| (RN2193) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 7.660 | 3.000 | 1.000 | 0.000 |
| (RN2525) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 3.000 | 1.000 | 0.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

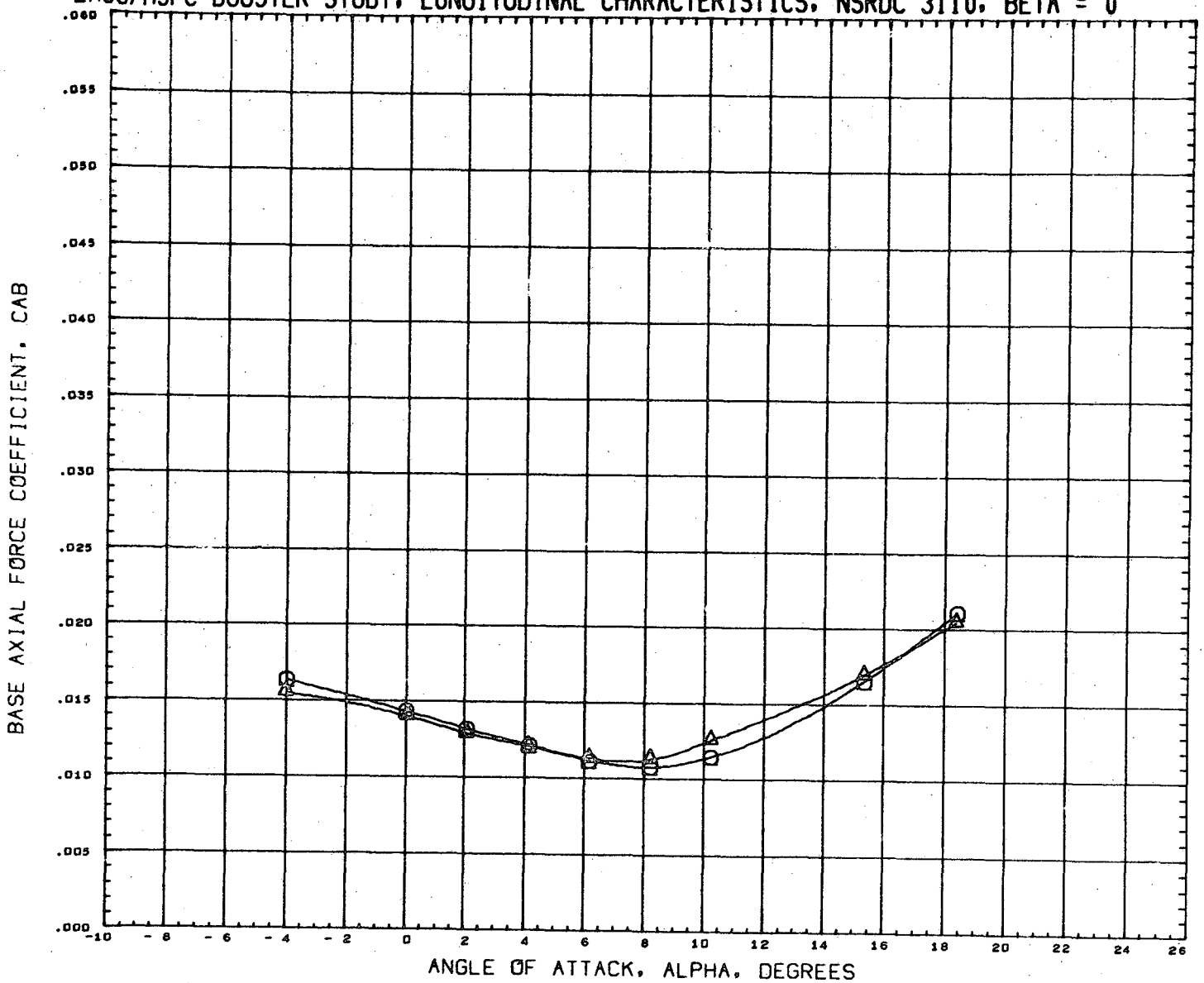



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|
| (RN2193) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 7.660 | 3.000 | 1.000 | 0.000 |
| (RN2525) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 3.000 | 1.000 | 0.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

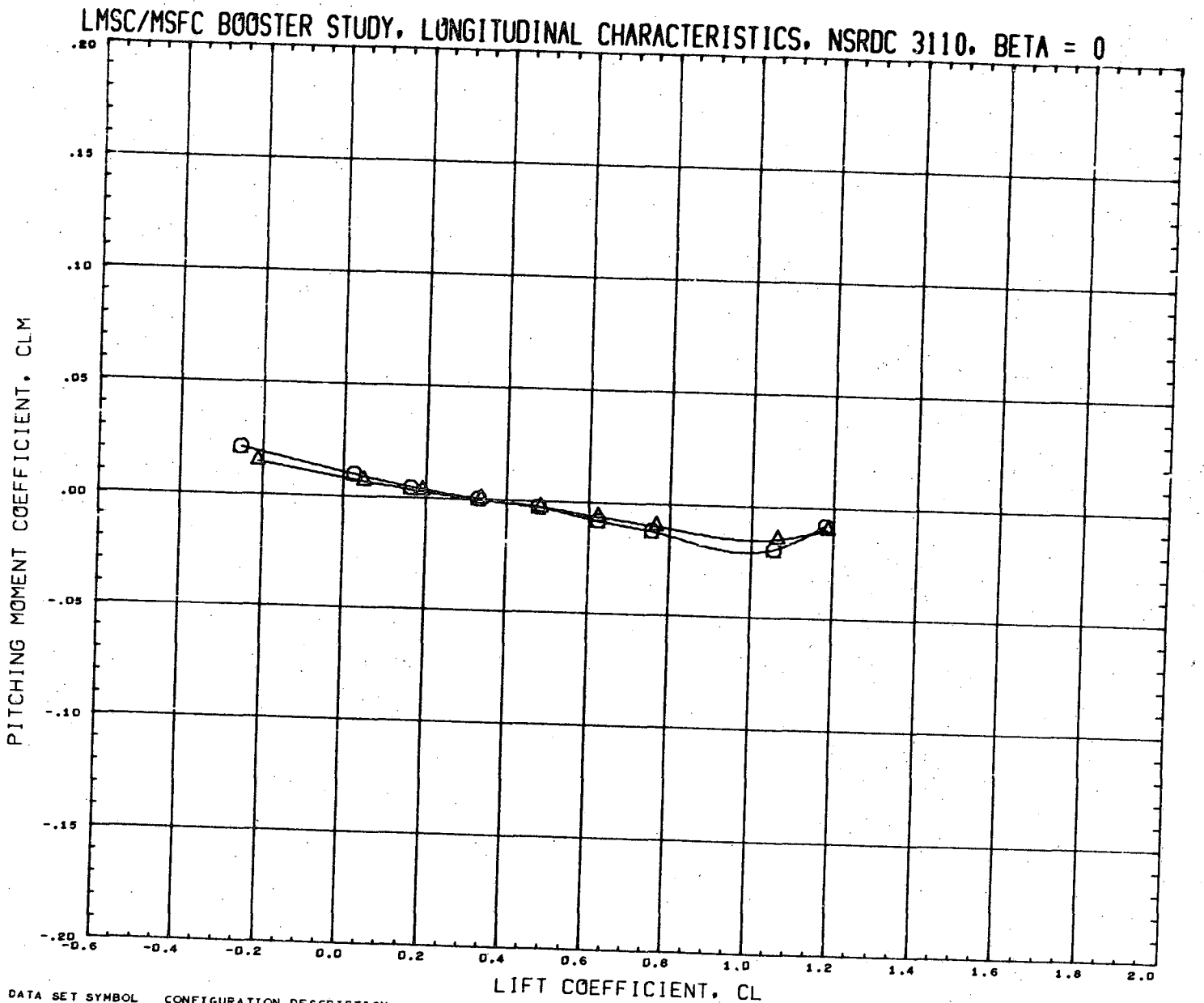
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|
| (RN2193) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 7.660 | 3.000 | 1.000 | 0.000 |
| (RN2525) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 3.000 | 1.000 | 0.000 |

MACH 0.380

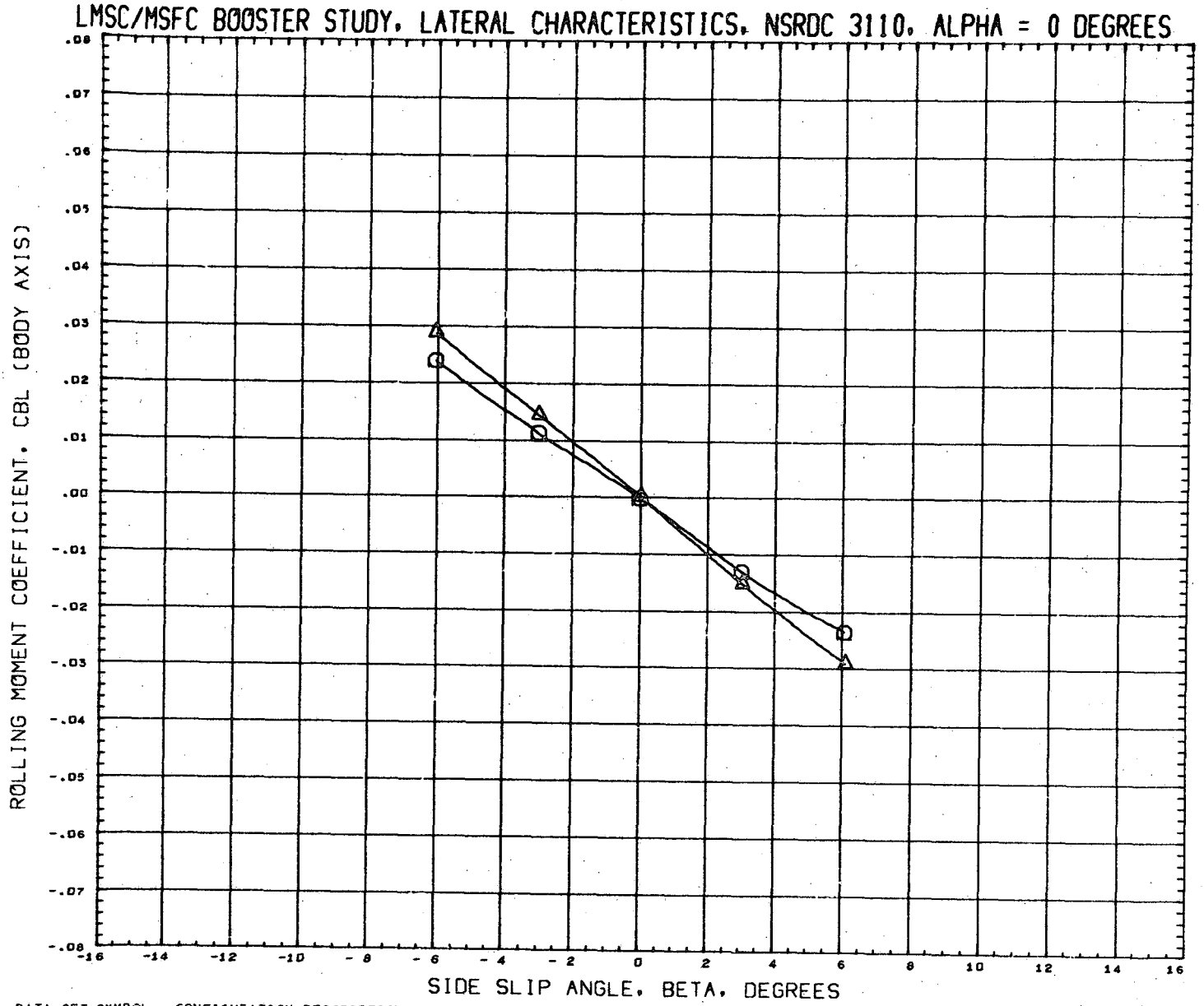
| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |




| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|
| (RN2193) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 7.660 | 3.000 | 1.000 | 0.000 |
| (RN2525) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 3.000 | 1.000 | 0.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

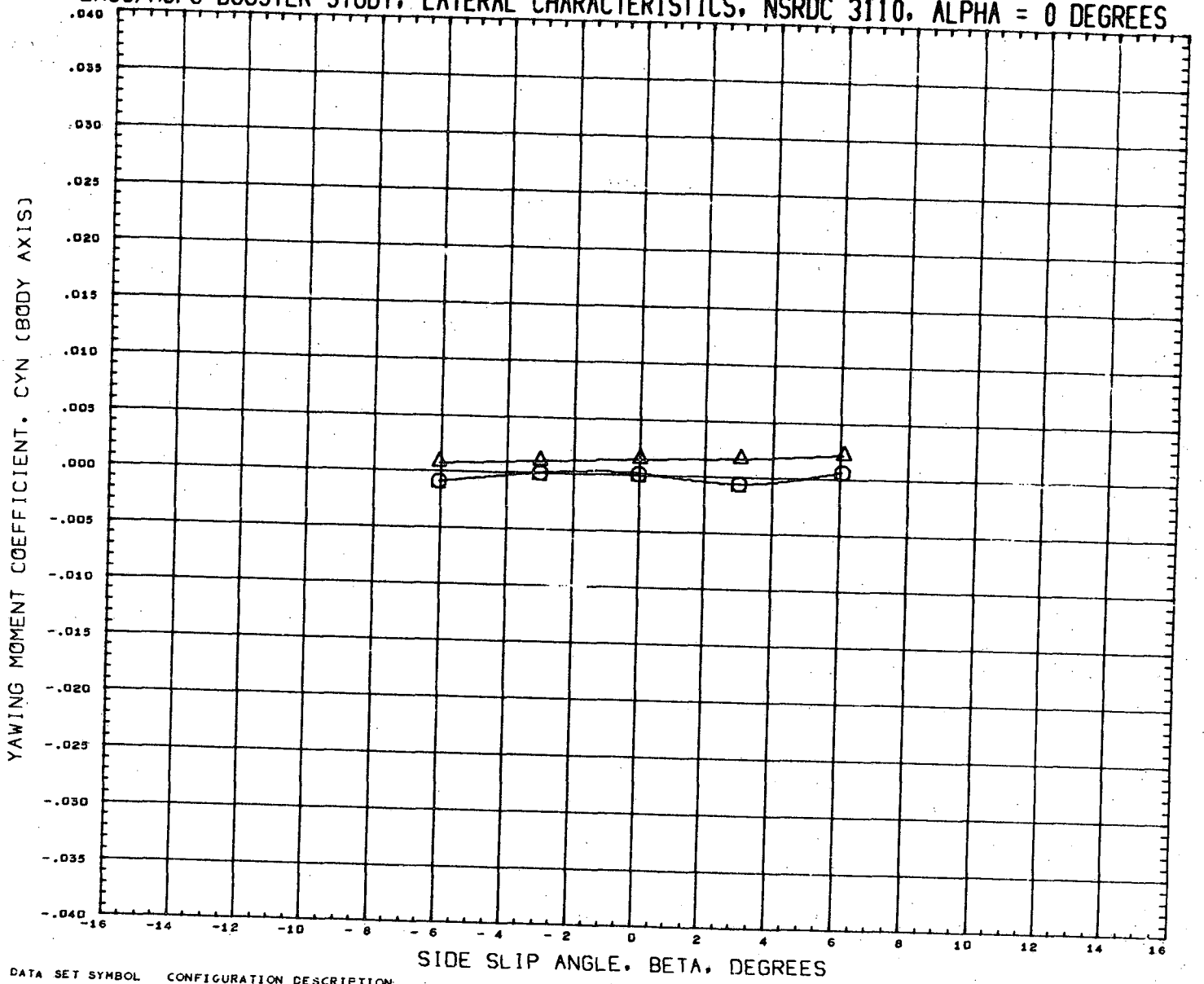



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|---|
| (RN2194) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 7.660 | 3.000 | 1.000 | 0.000 |
| (RN2526) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 3.000 | 1.000 | 0.000 |

MACH 0.377

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

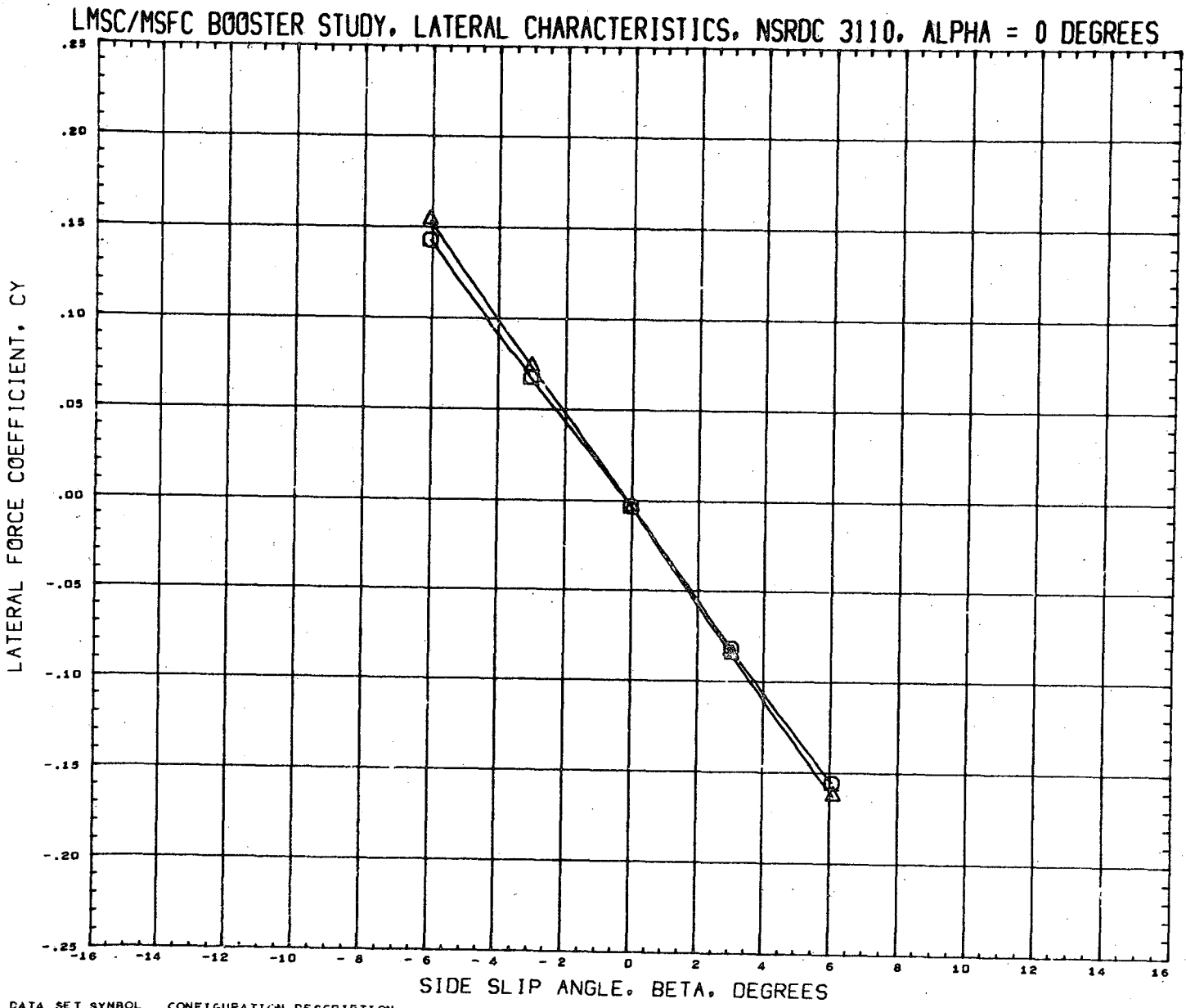
# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES




| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|
| (RN2194) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 7.660 | 3.000 | 1.000 | 0.000 |
| (RN2526) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 3.000 | 1.000 | 0.000 |

MACH 0.377

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

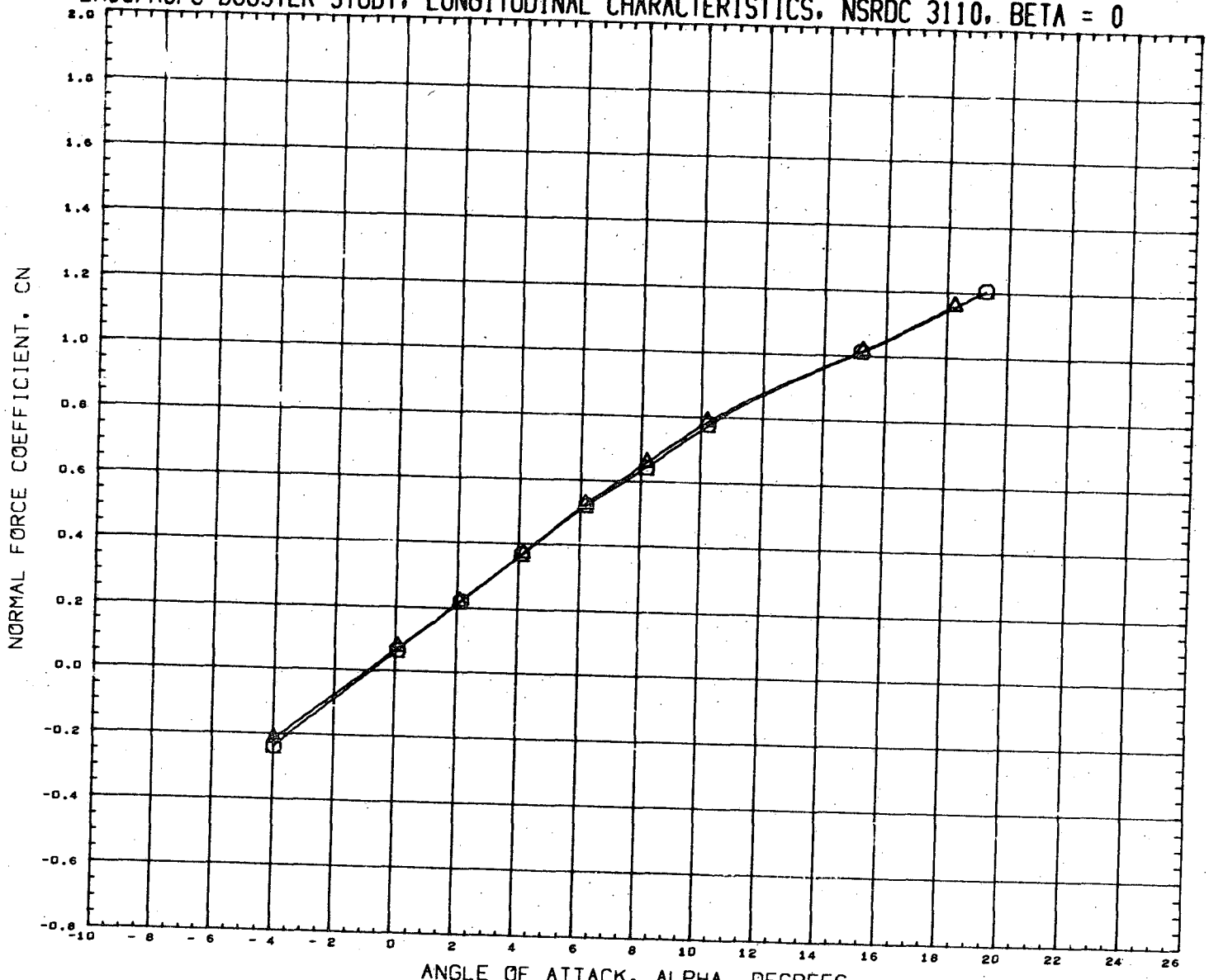



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|---|
| (RN2194) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 7.660 | 3.000 | 1.000 | 0.000 |
| (RN2526) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 3.000 | 1.000 | 0.000 |

MACH 0.377

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

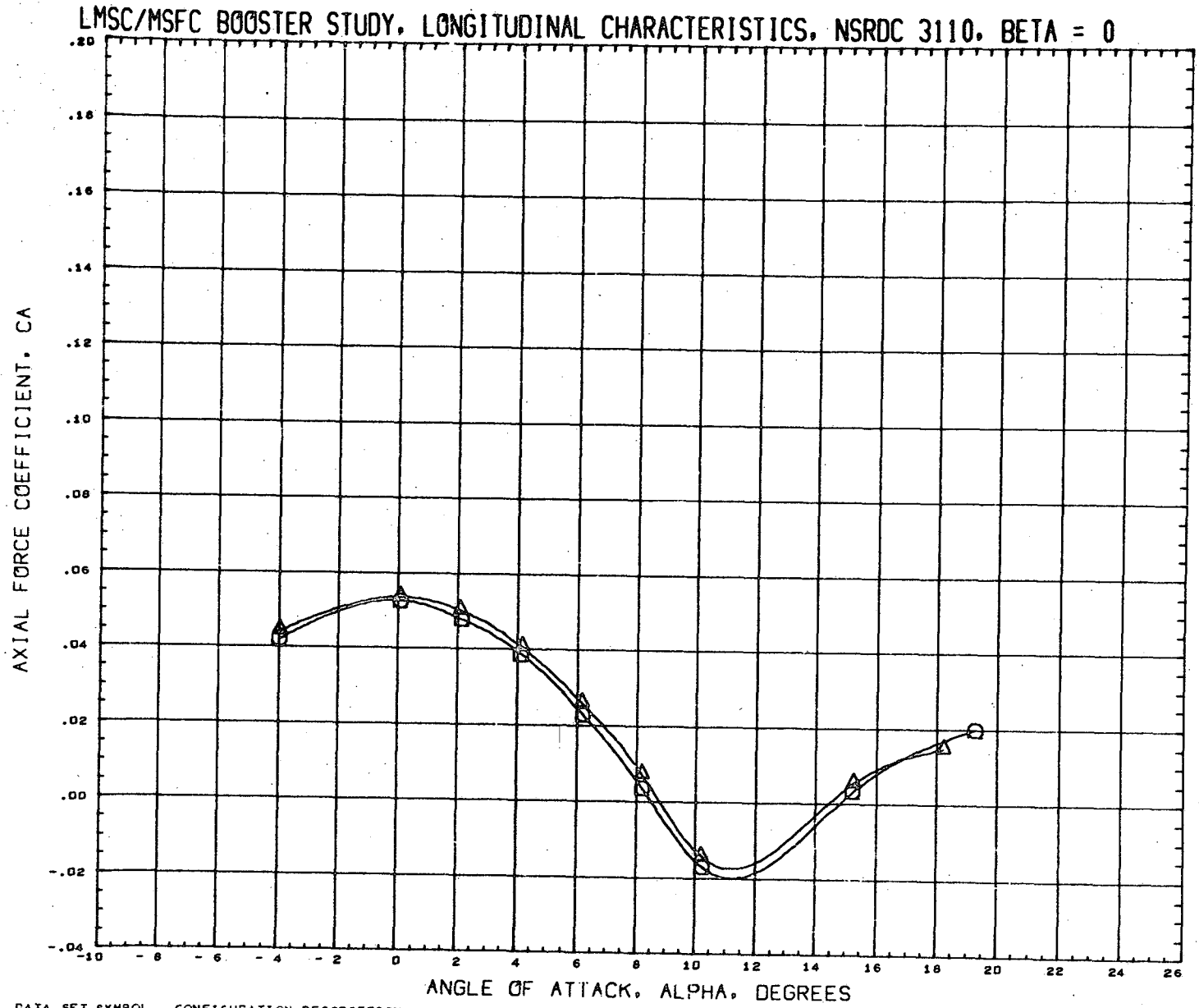
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|
| (RN2201) ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 7.660 | 3.000 | 2.000 | 0.000 |
| (RN2529) △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 3.000 | 2.000 | 0.000 |

MACH 0.381

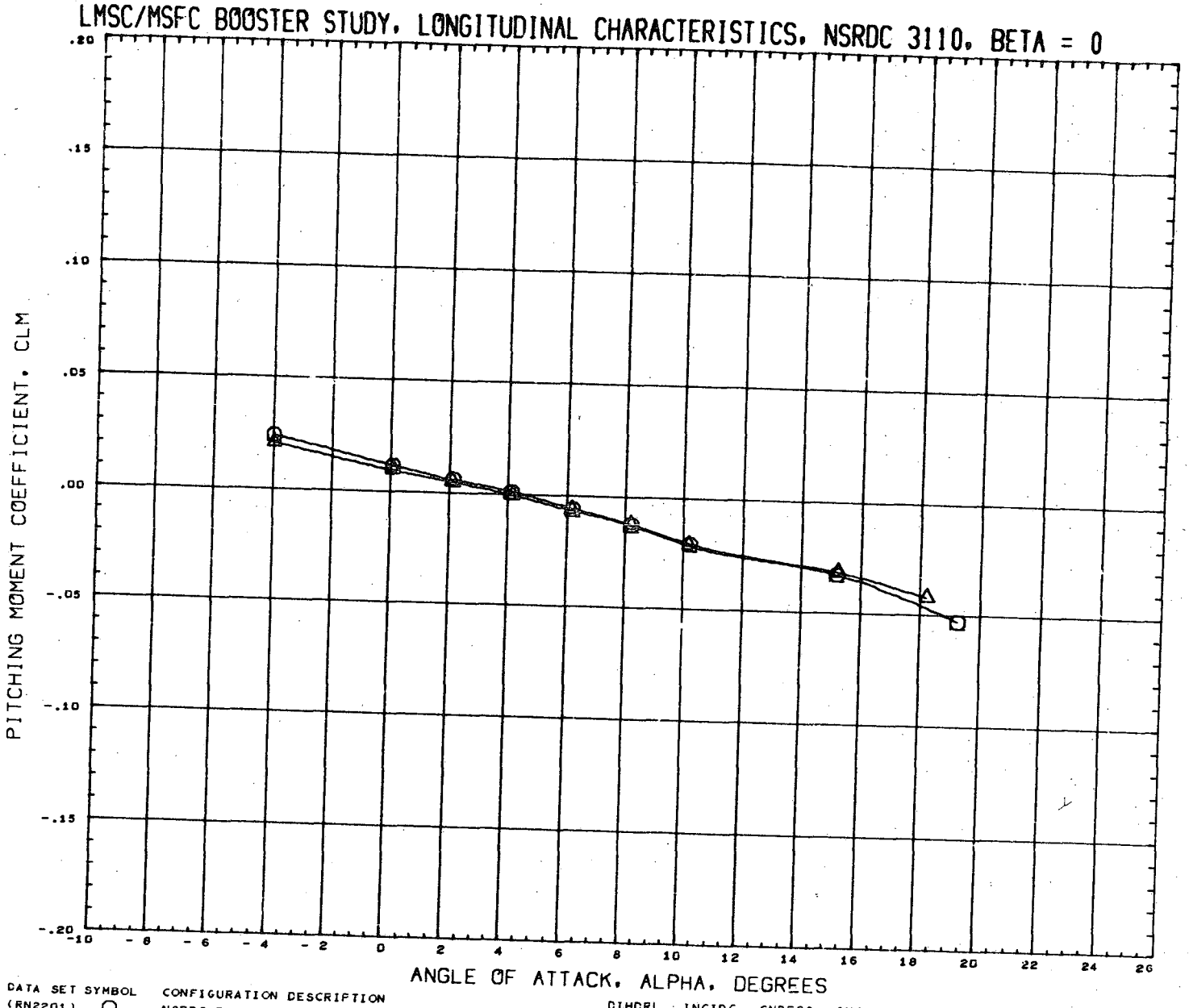
| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |




| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|---|
| (RN2201) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 7.660 | 3.000 | 2.000 | 0.000 |
| (RN2529) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 3.000 | 2.000 | 0.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

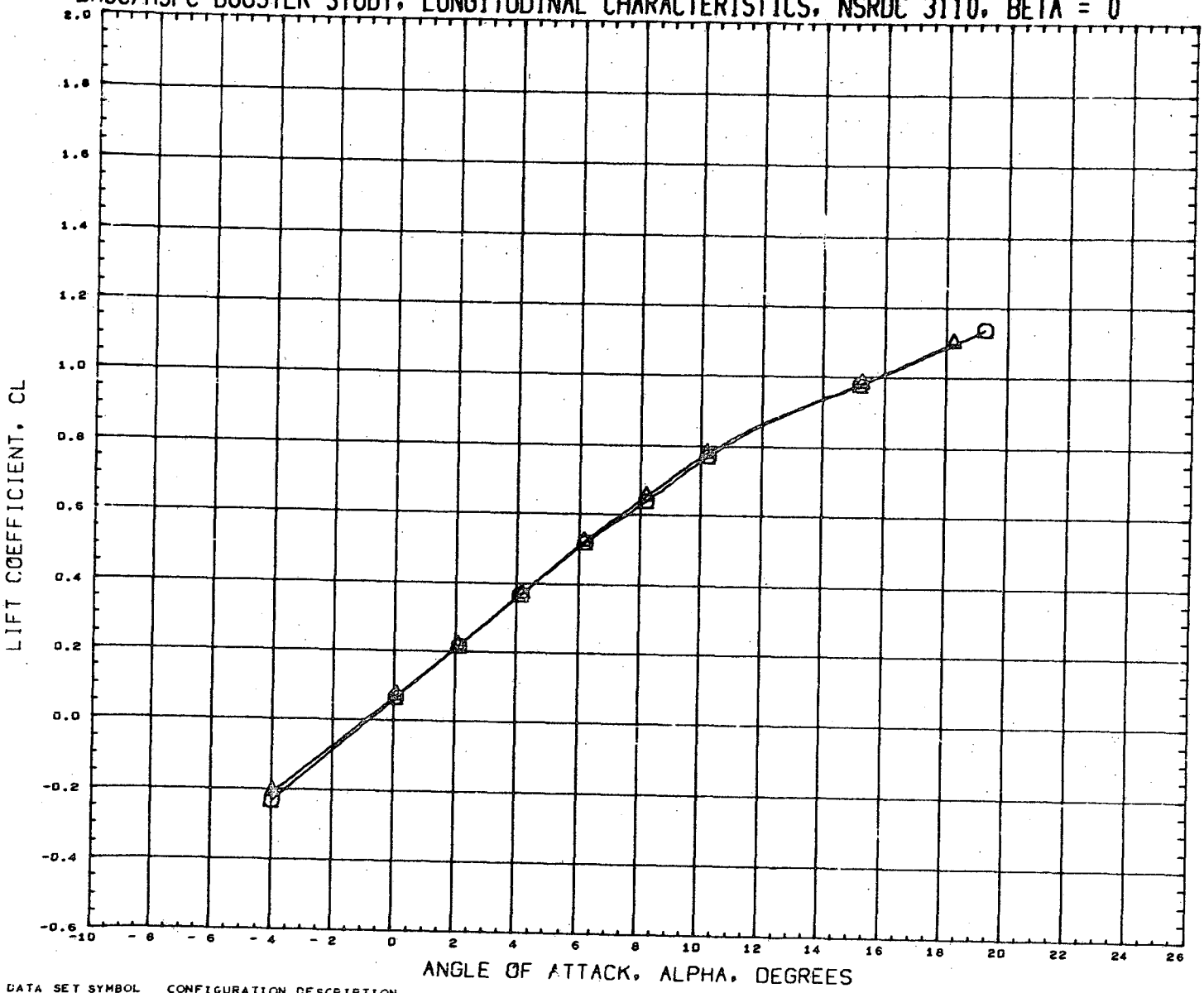



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|
| (RN2201) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 7.660 | 3.000 | 2.000 | 0.000 |
| (RN2529) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 3.000 | 2.000 | 0.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

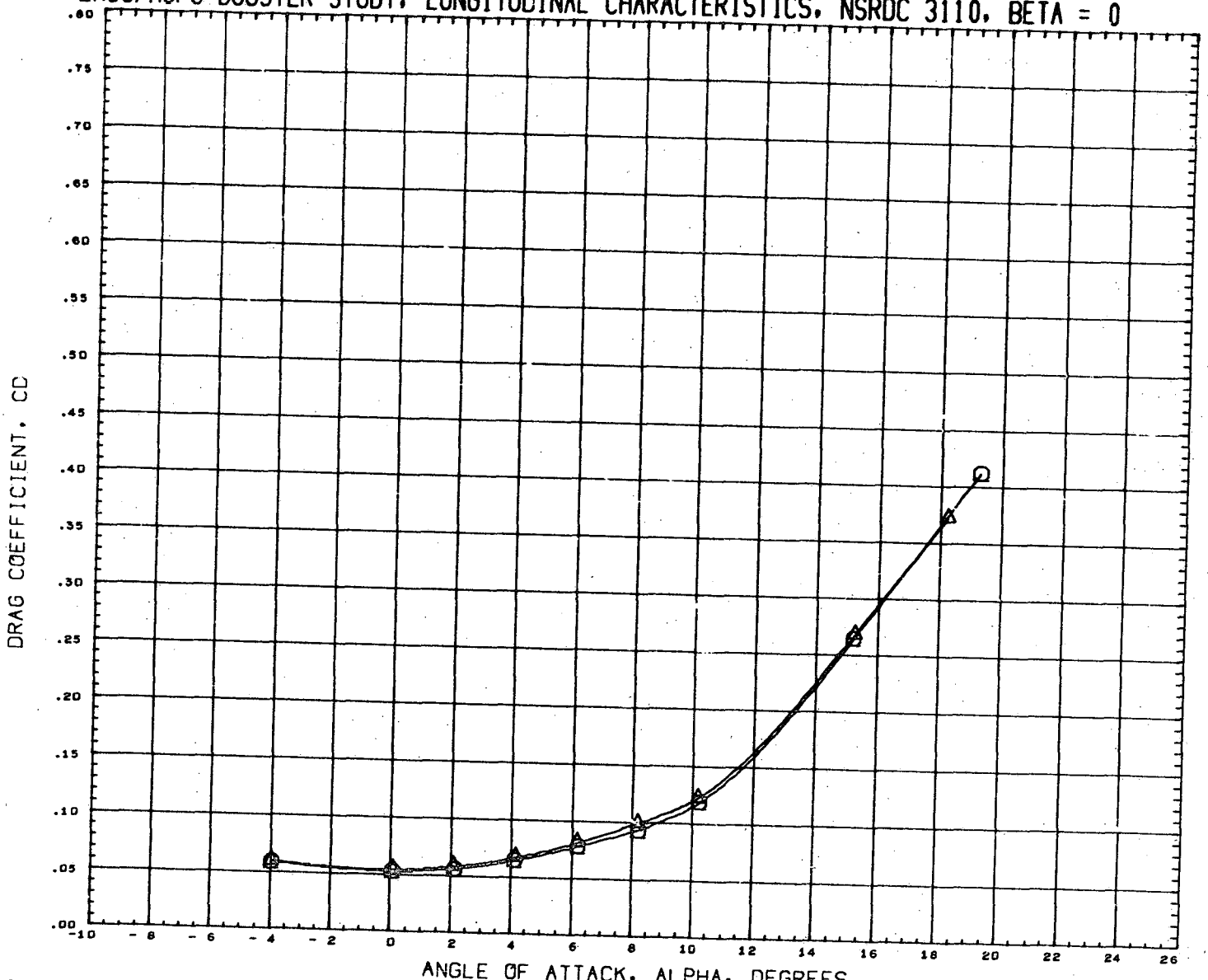



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|
| (RN2201) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 7.660 | 3.000 | 2.000 | 0.000 |
| (RN2529) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 3.000 | 2.000 | 0.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

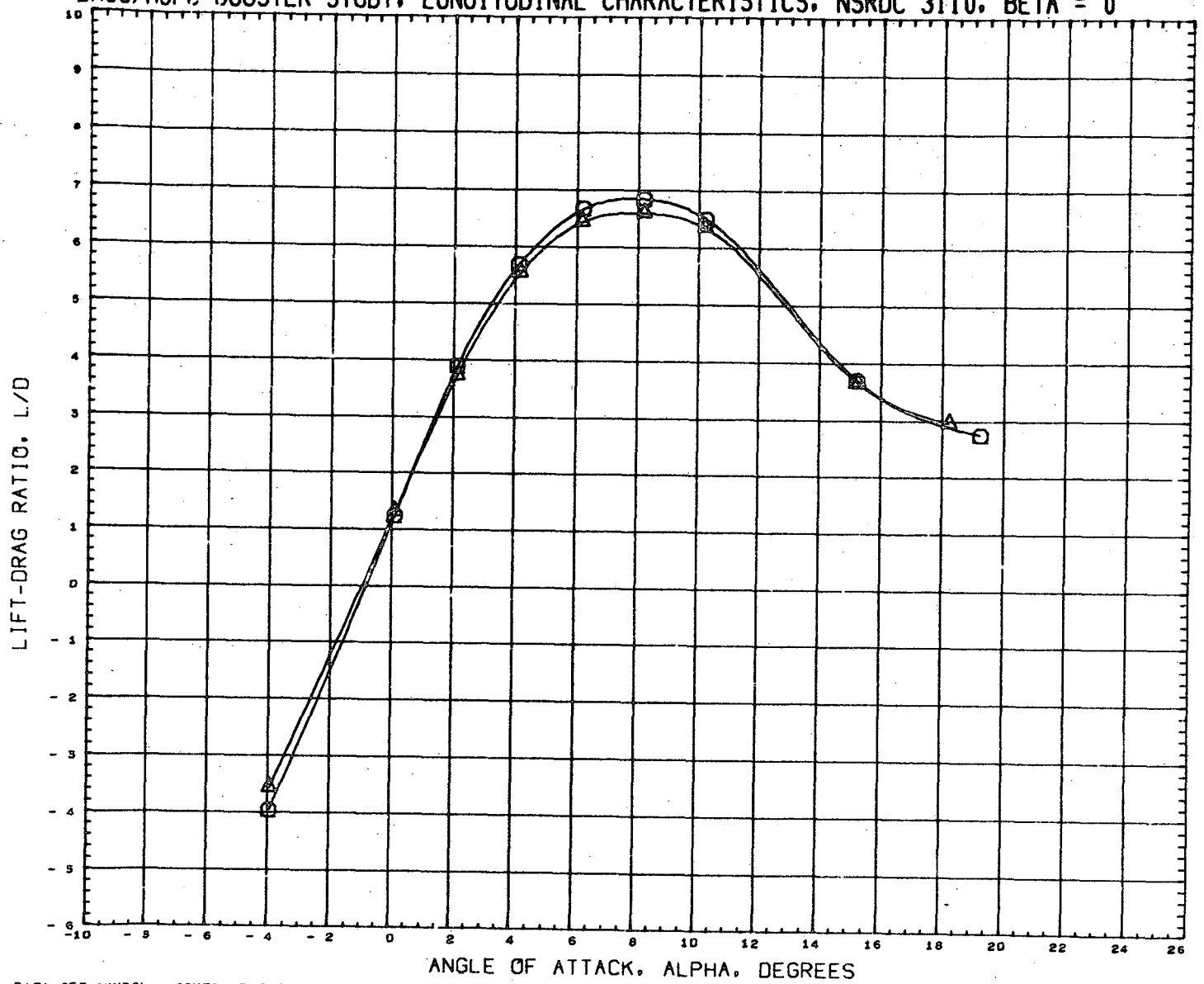



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|---|
| (RN2201) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 7.660 | 3.000 | 2.000 | 0.000 |
| (RN2529) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 3.000 | 2.000 | 0.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

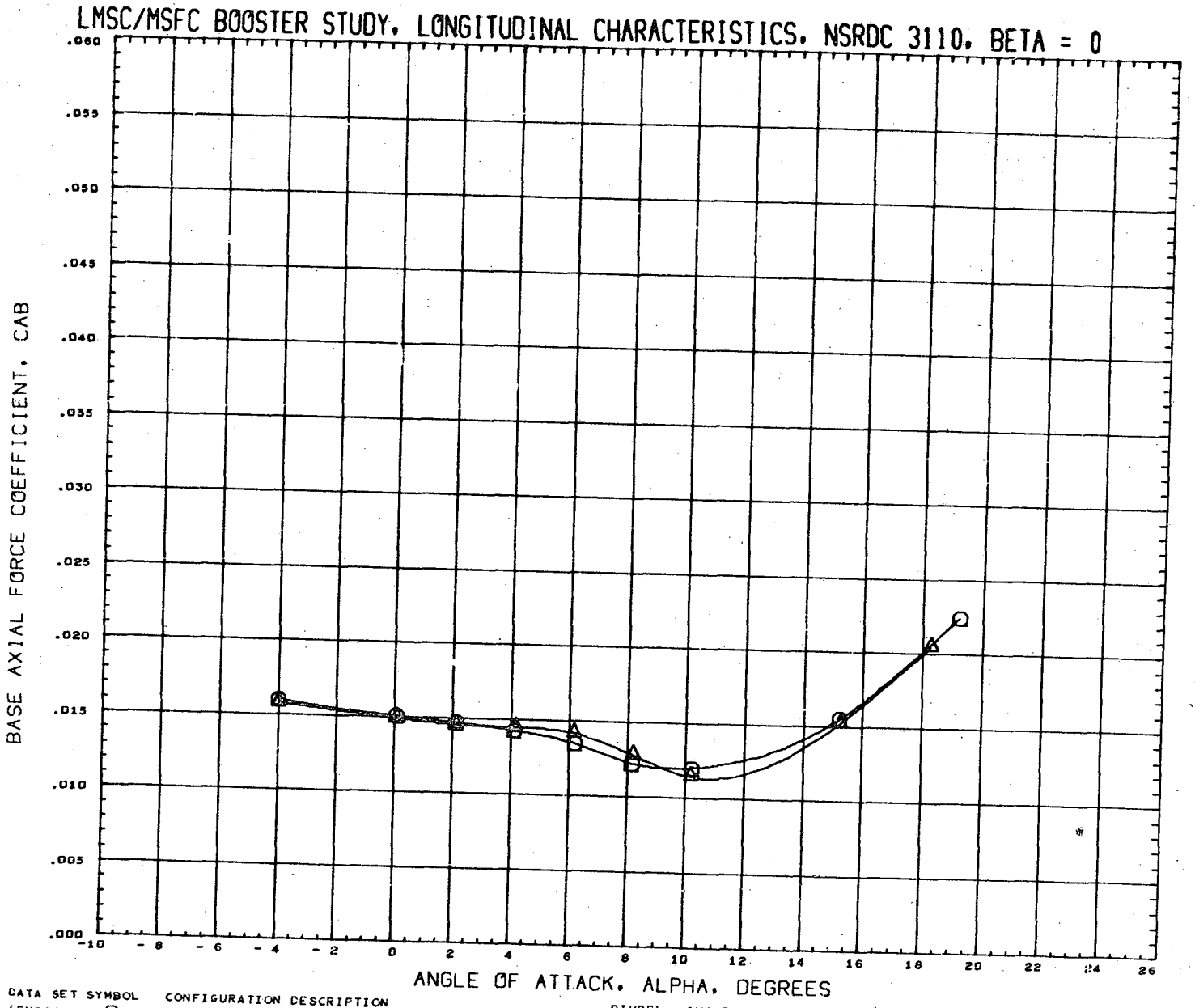
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|
| (RN2201) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 7.660 | 3.000 | 2.000 | 0.000 |
| (RN2529) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 3.000 | 2.000 | 0.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

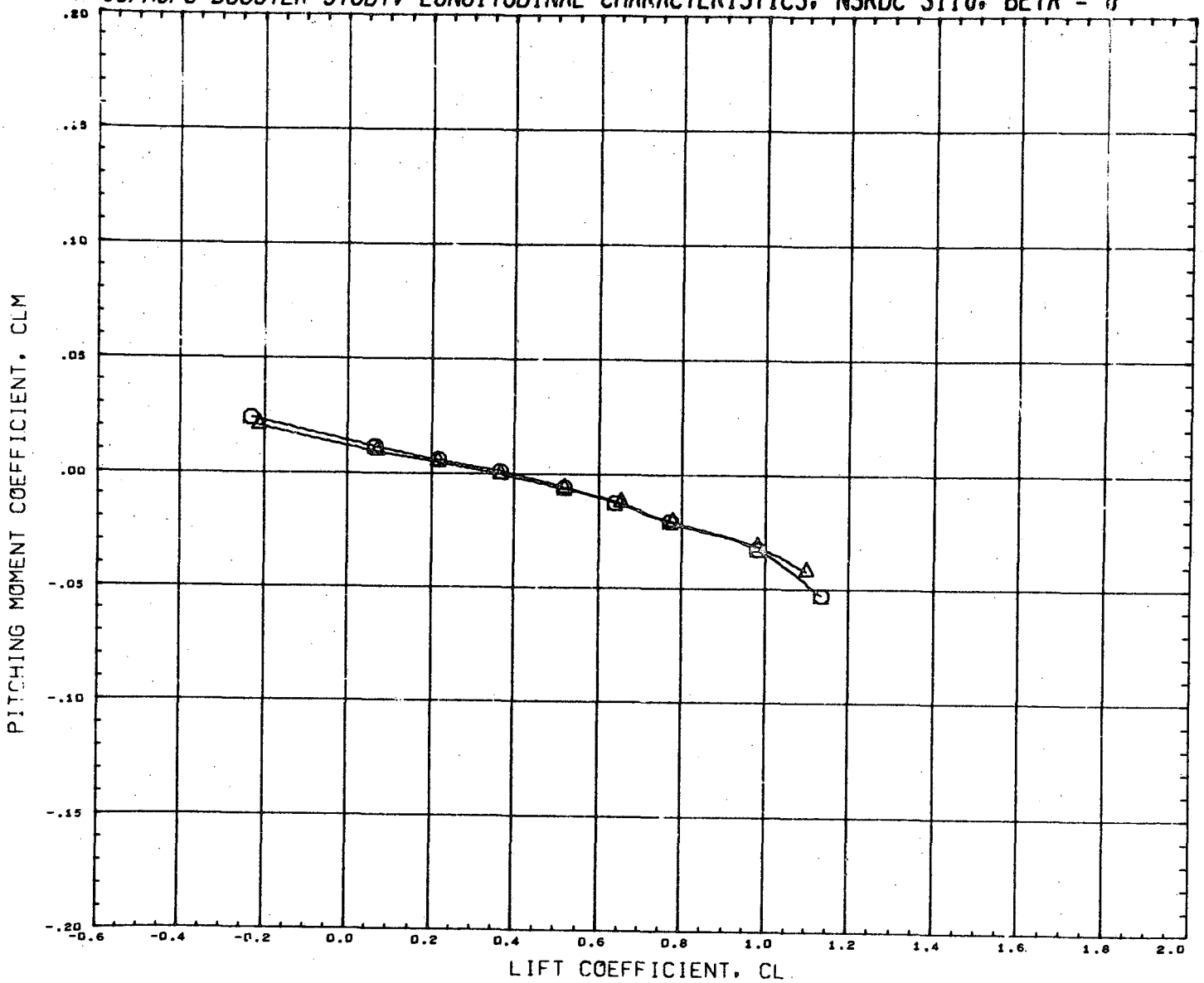



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|
| (RN2201) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 7.660 | 3.000 | 2.000 | 0.000 |
| (RN2529) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 3.000 | 2.000 | 0.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

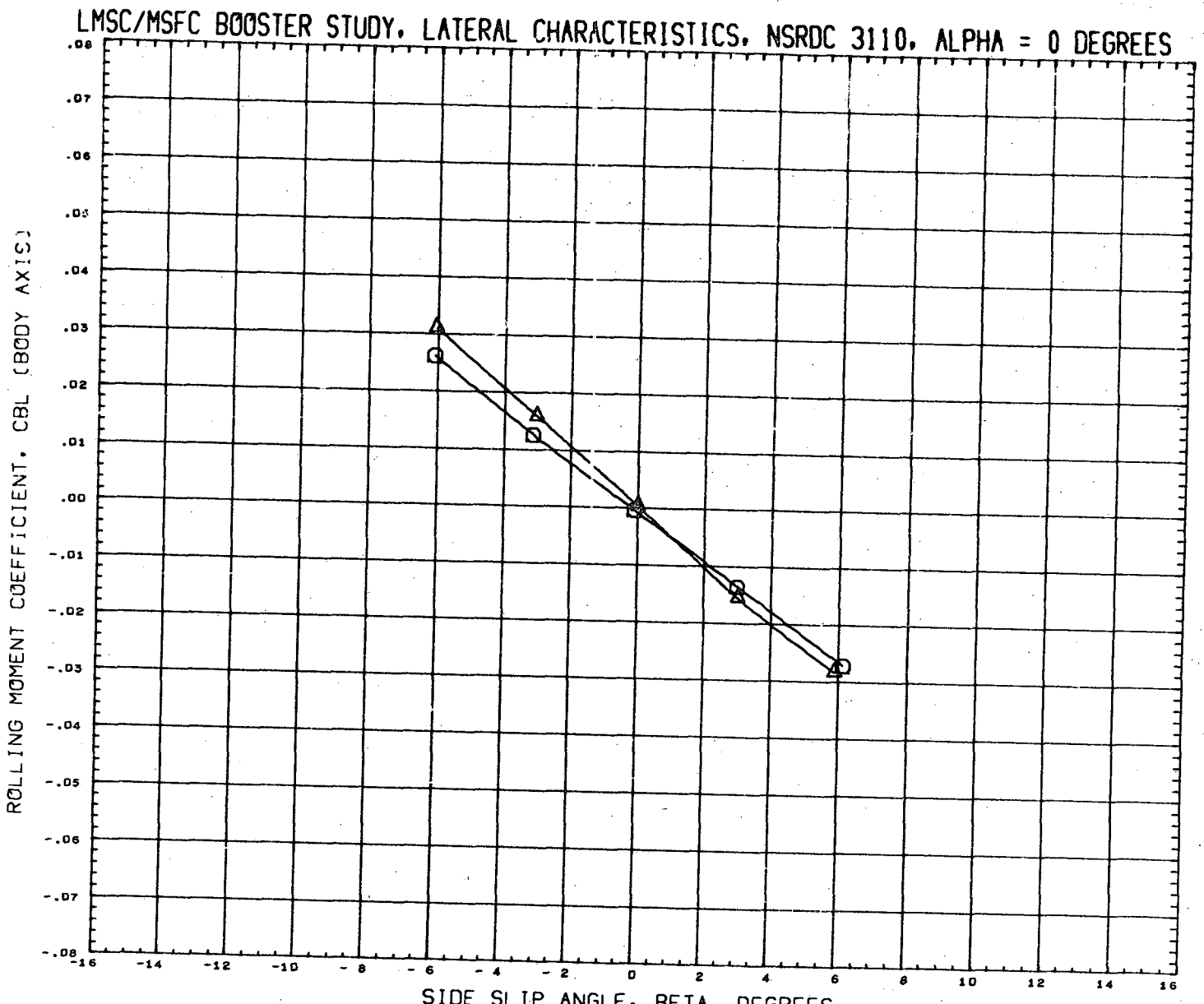
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|---|
| (RN2201) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 7.660 | 3.000 | 2.000 | 0.000 |
| (RN2529) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 3.000 | 2.000 | 0.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

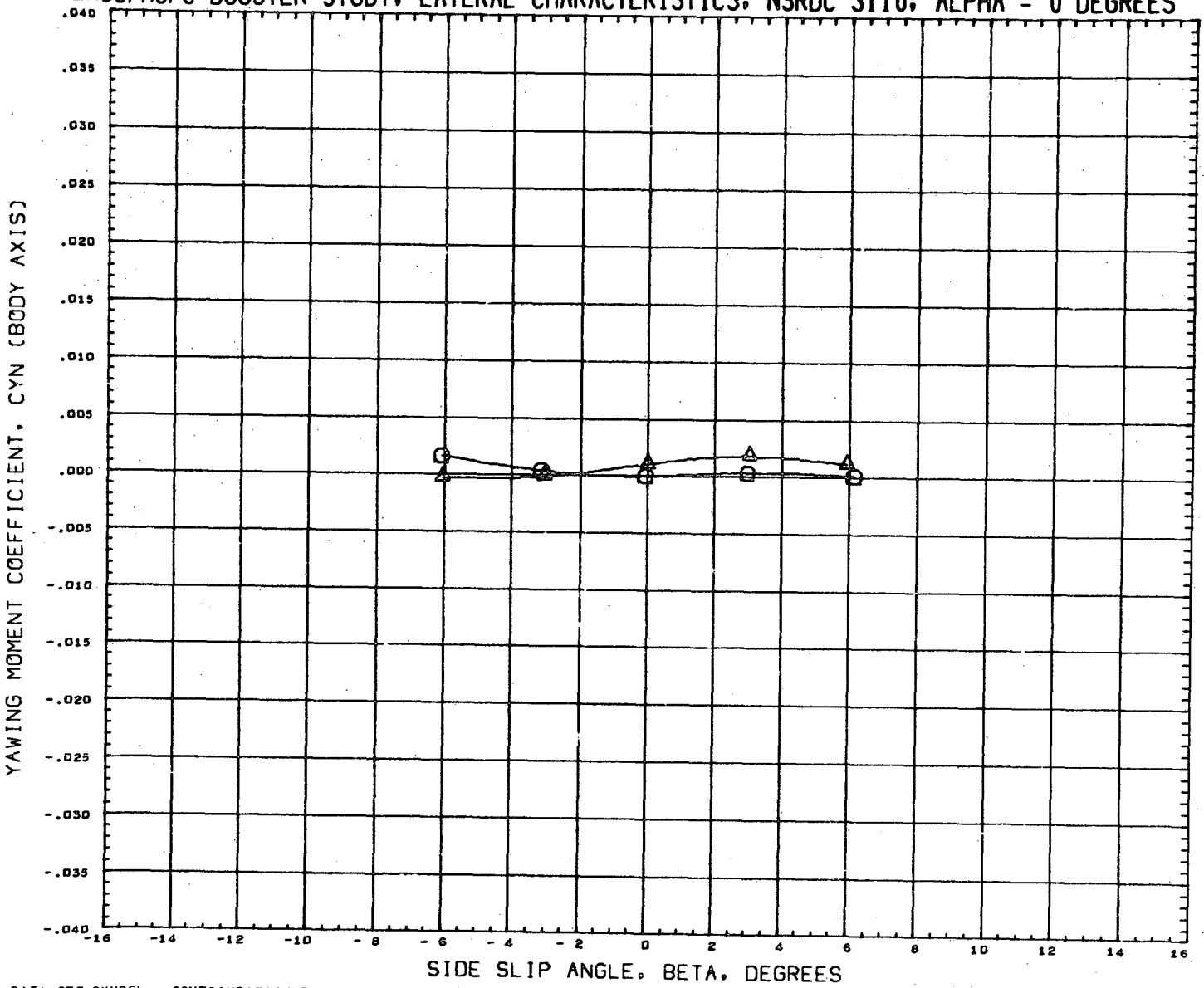



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|
| (RN2202) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 7.660 | 3.000 | 2.000 | 0.000 |
| (RN2530) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 3.000 | 2.000 | 0.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

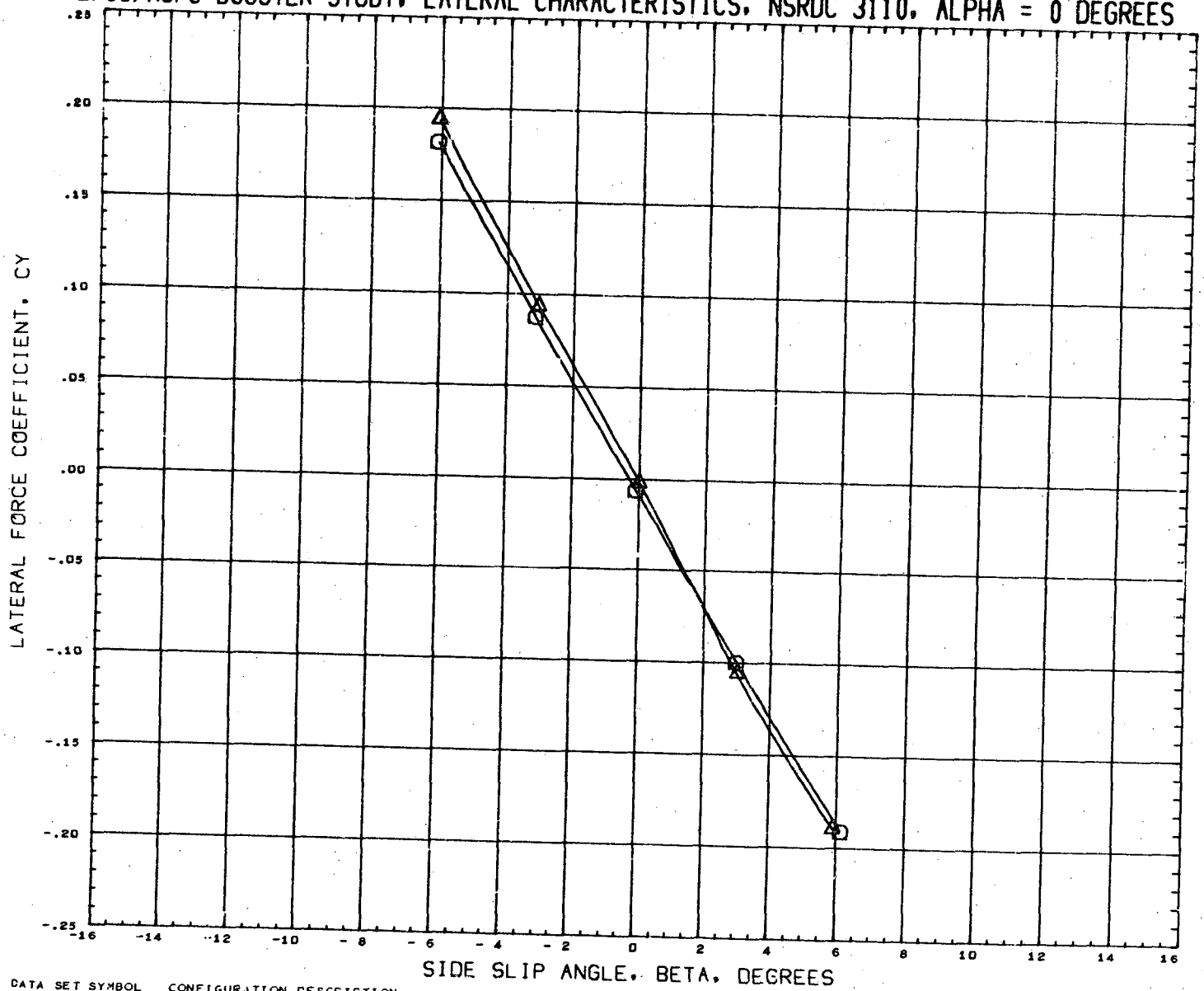



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|---|
| (RN2202) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 7.660 | 3.000 | 2.000 | 0.000 |
| (RN2530) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 3.000 | 2.000 | 0.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

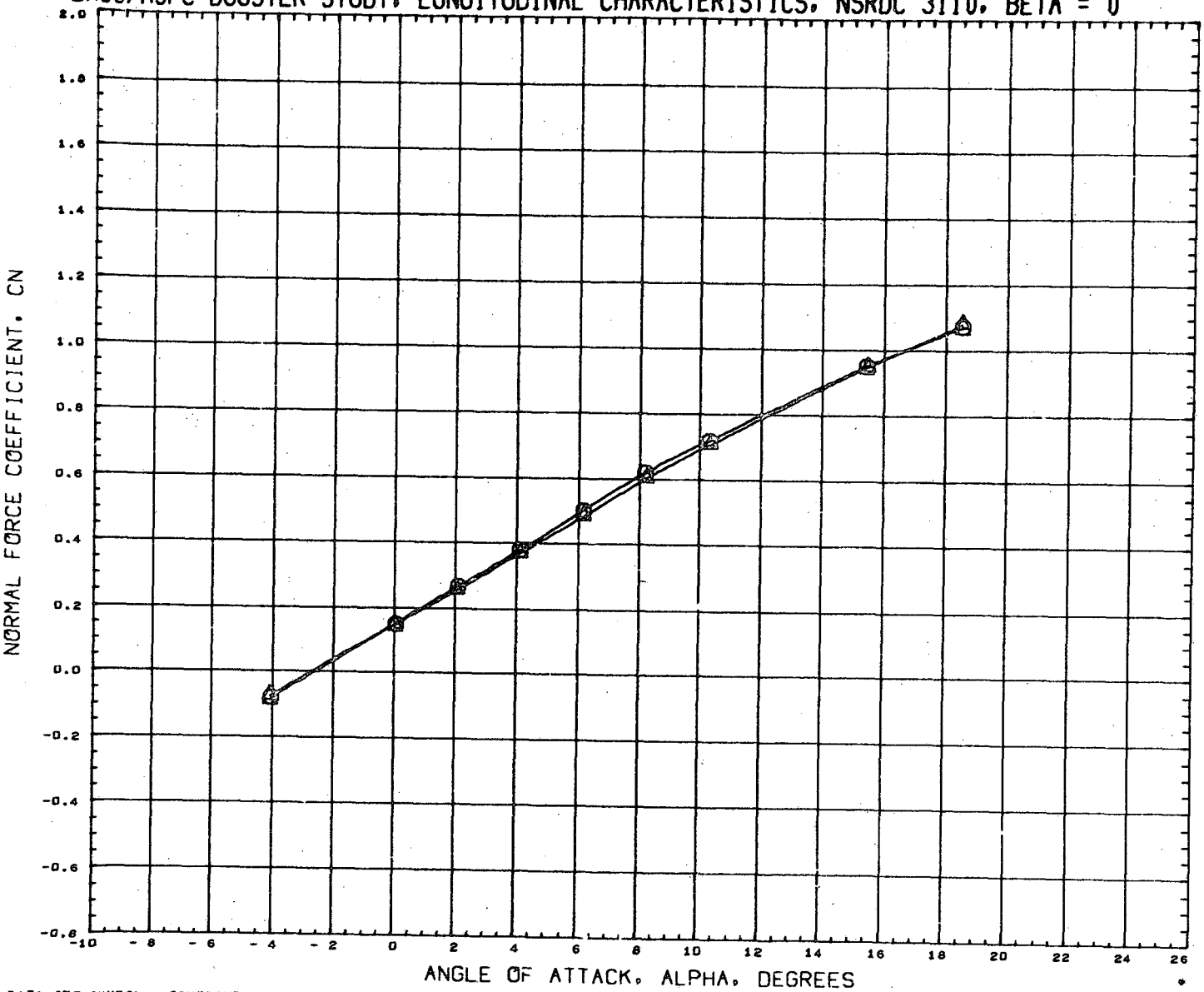



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|
| (RN2202) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 7.660 | 3.000 | 2.000 | 0.000 |
| (RN2530) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W1V2D1 | 15.000 | 3.000 | 2.000 | 0.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

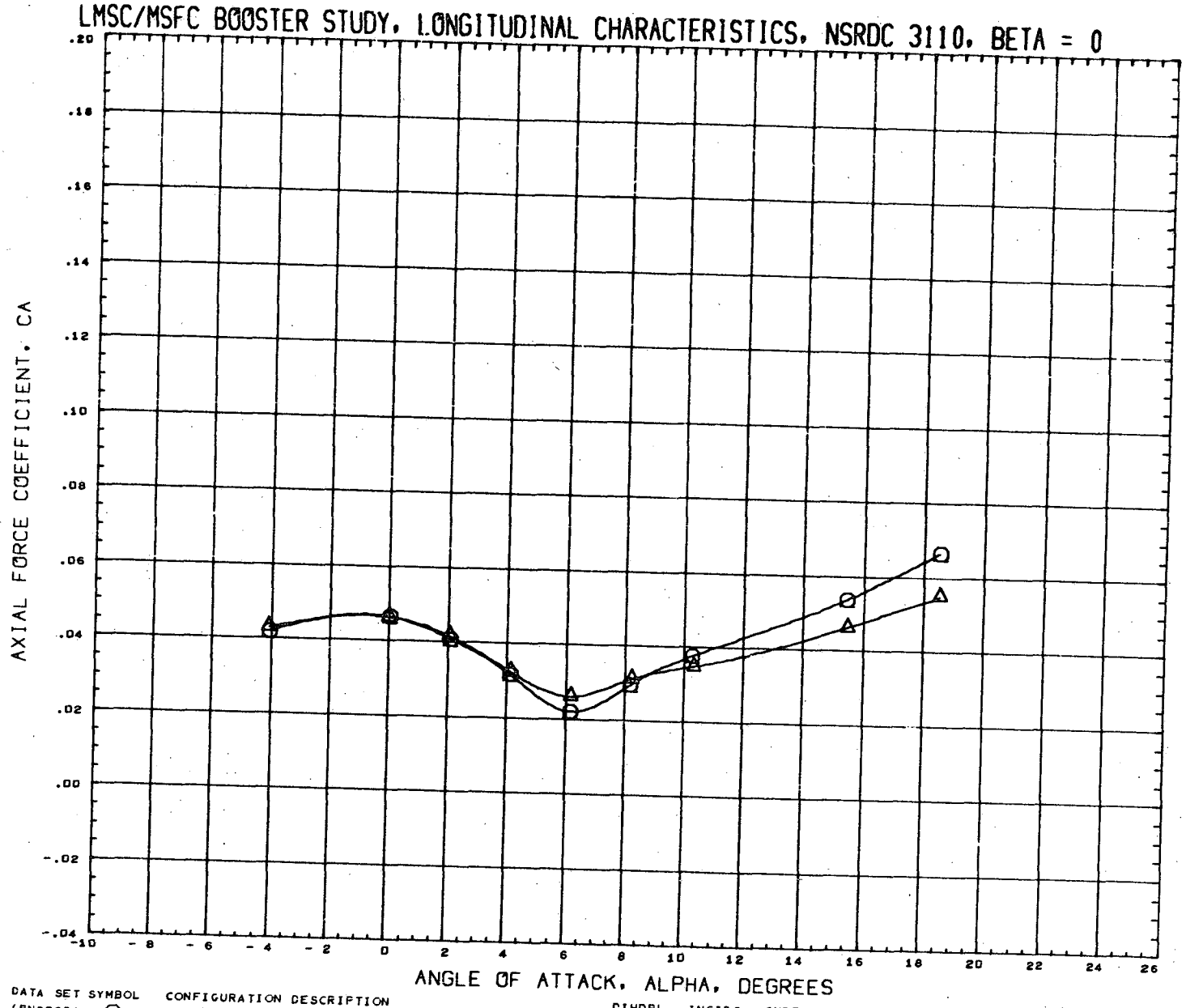
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|---|
| (RN2285) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 7.660 | 3.000 | 1.000 | 3.000 |
| (RN2533) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 3.000 | 1.000 | 3.000 |

MACH 0.360

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

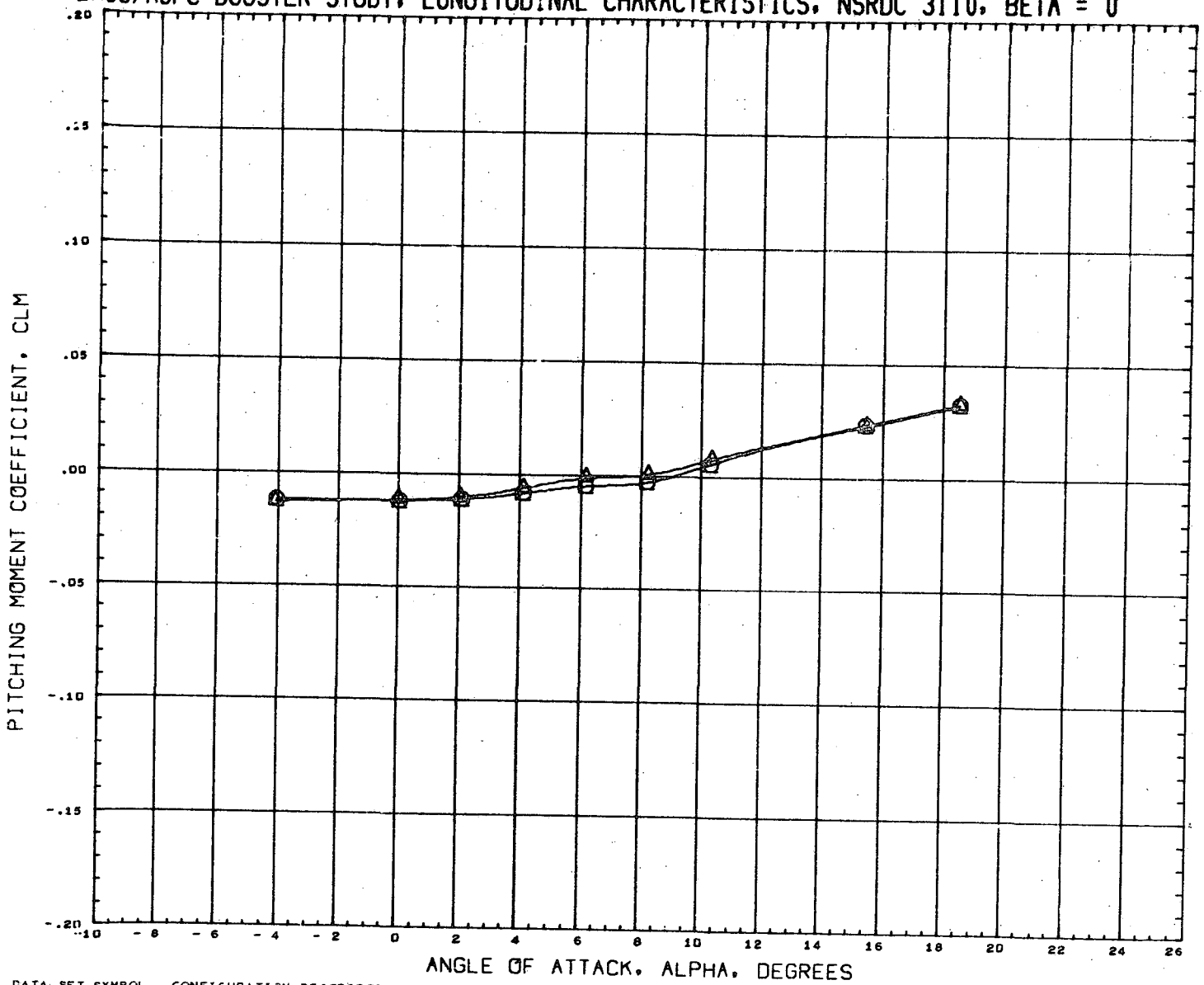



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|
| (RN2285) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 7.660 | 3.000 | 1.000 | 3.000 |
| (RN2533) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 3.000 | 1.000 | 3.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

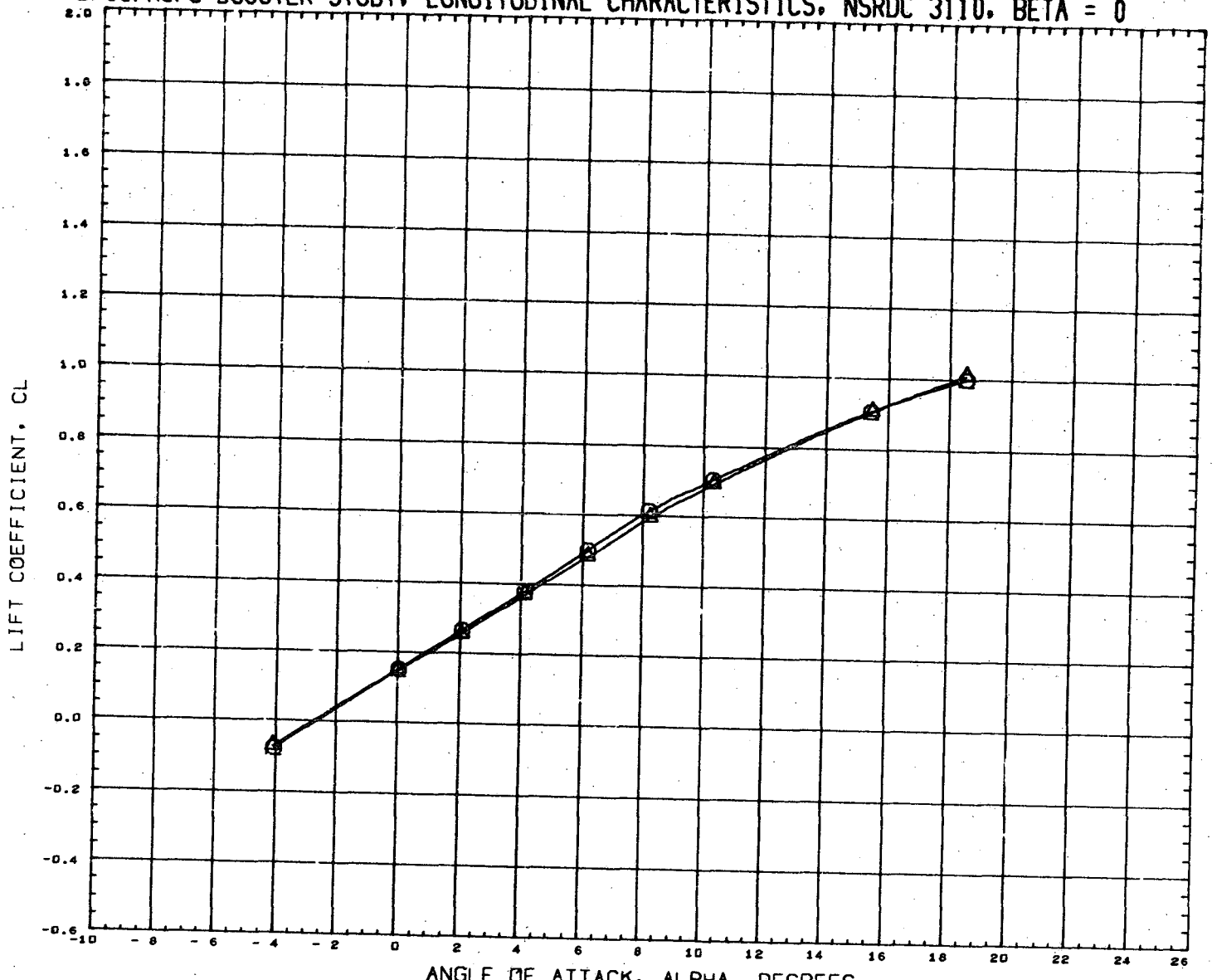



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDFOS | INCIDW |
|---|---|---|---|---|---|
| (RN2285) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 7.660 | 3.000 | 1.000 | 3.000 |
| (RN2533) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 3.000 | 1.000 | 3.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

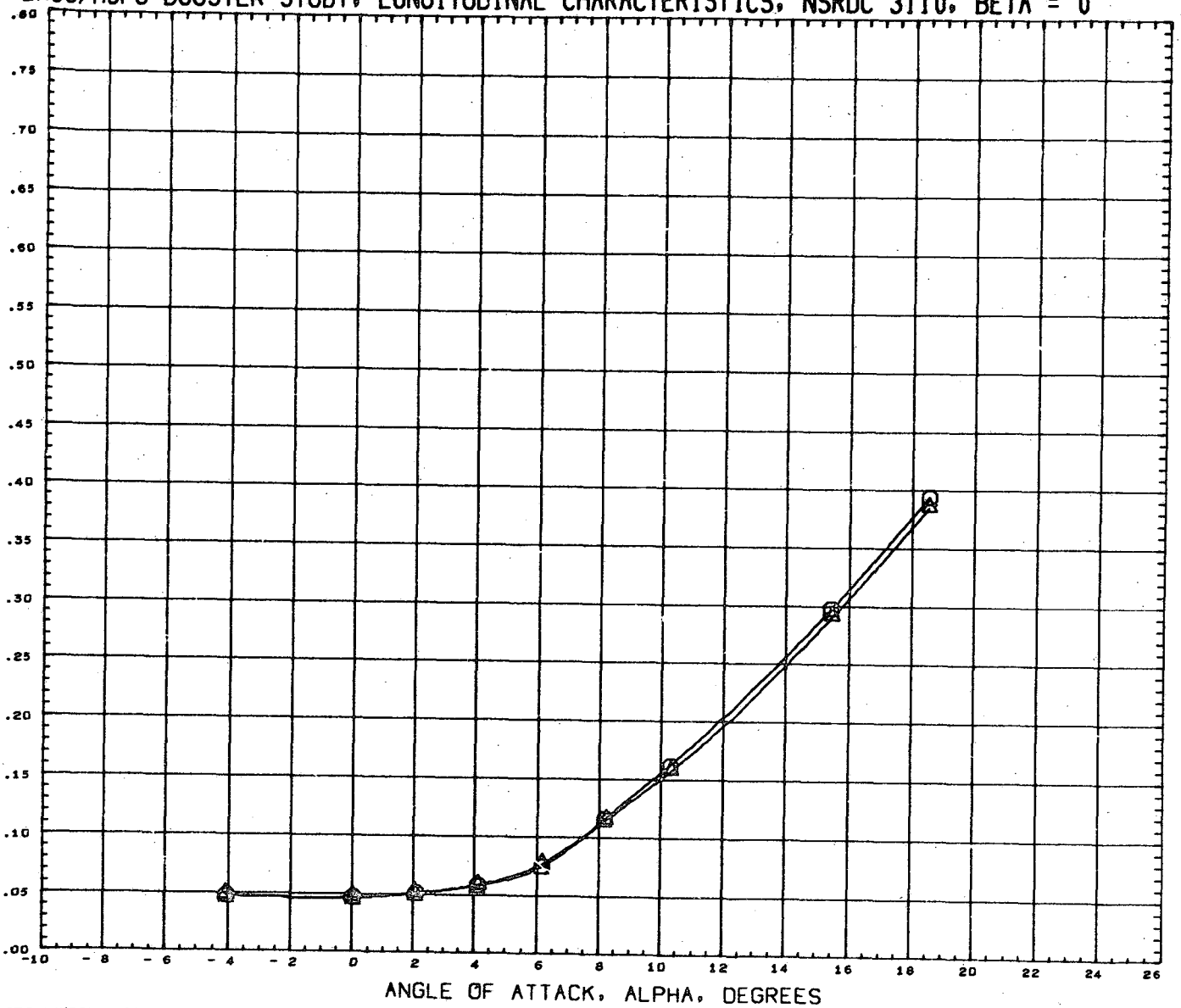



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|
| (RN2285) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 7.660 | 3.000 | 1.000 | 3.000 |
| (RN2533) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 3.000 | 1.000 | 3.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

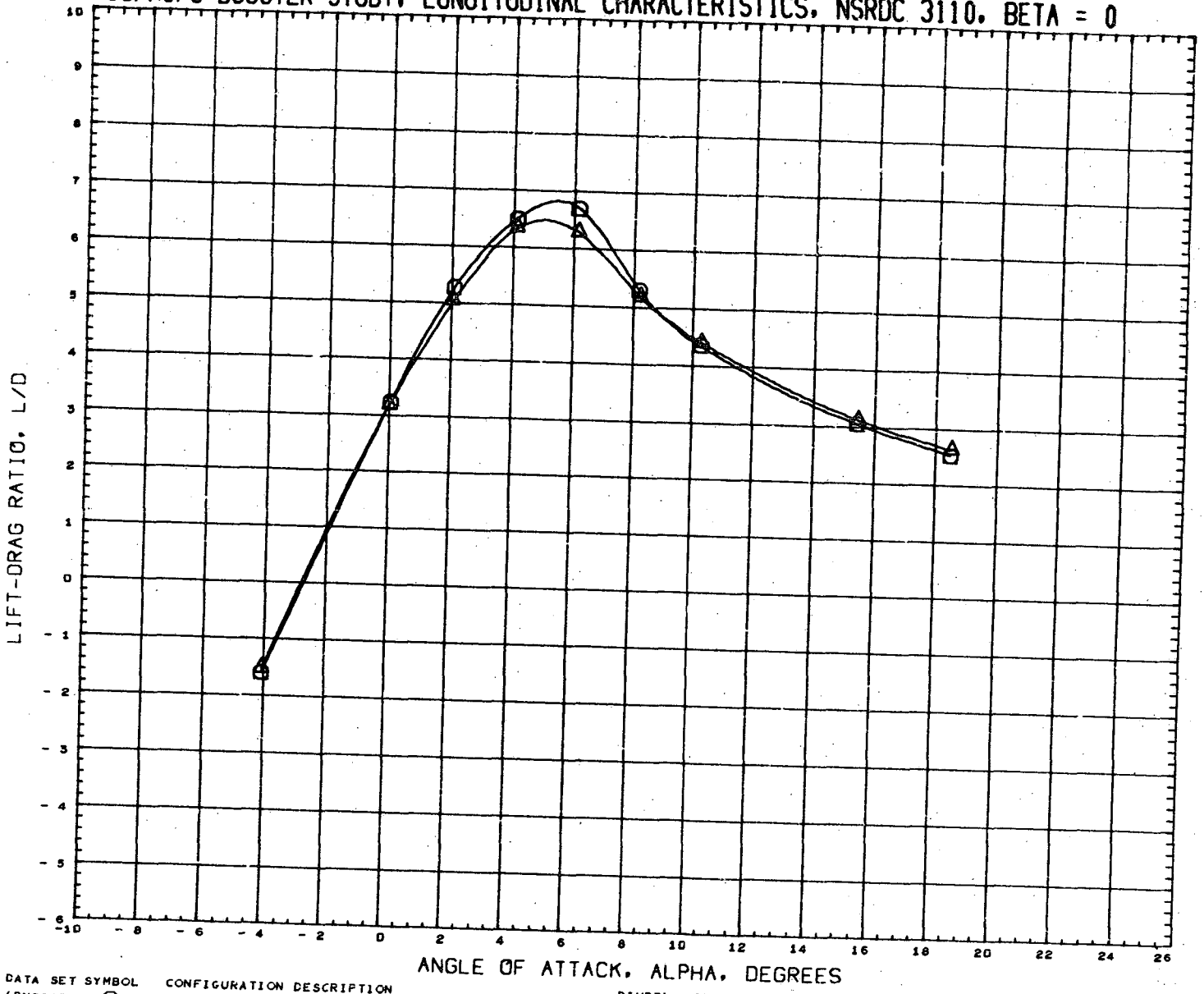
# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0




| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|---|
| (RN2285) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 7.660 | 3.000 | 1.000 | 3.000 |
| (RN2533) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 3.000 | 1.000 | 3.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

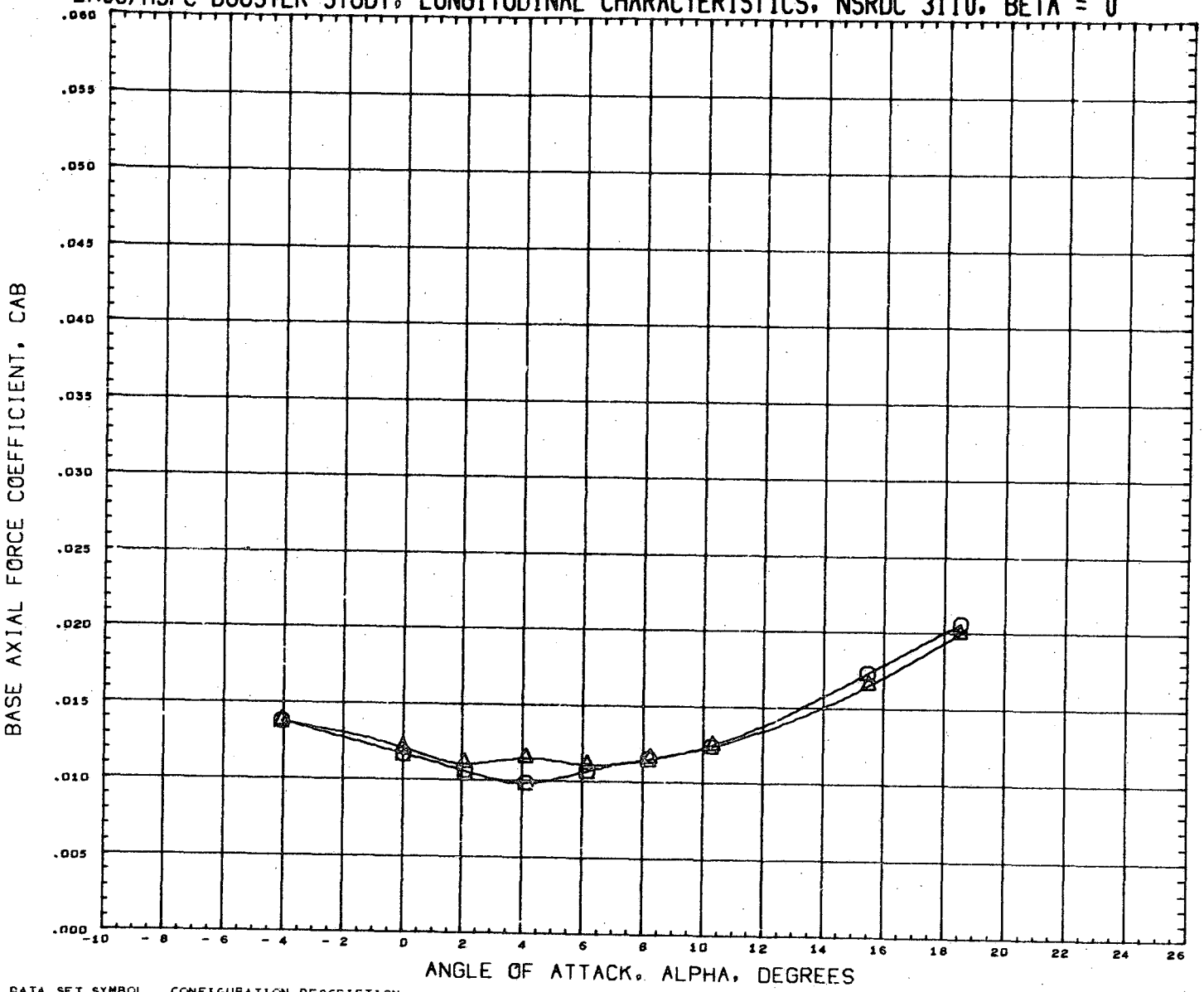



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|
| (RN2285) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 7.660 | 3.000 | 1.000 | 3.000 |
| (RN2533) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 3.000 | 1.000 | 3.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

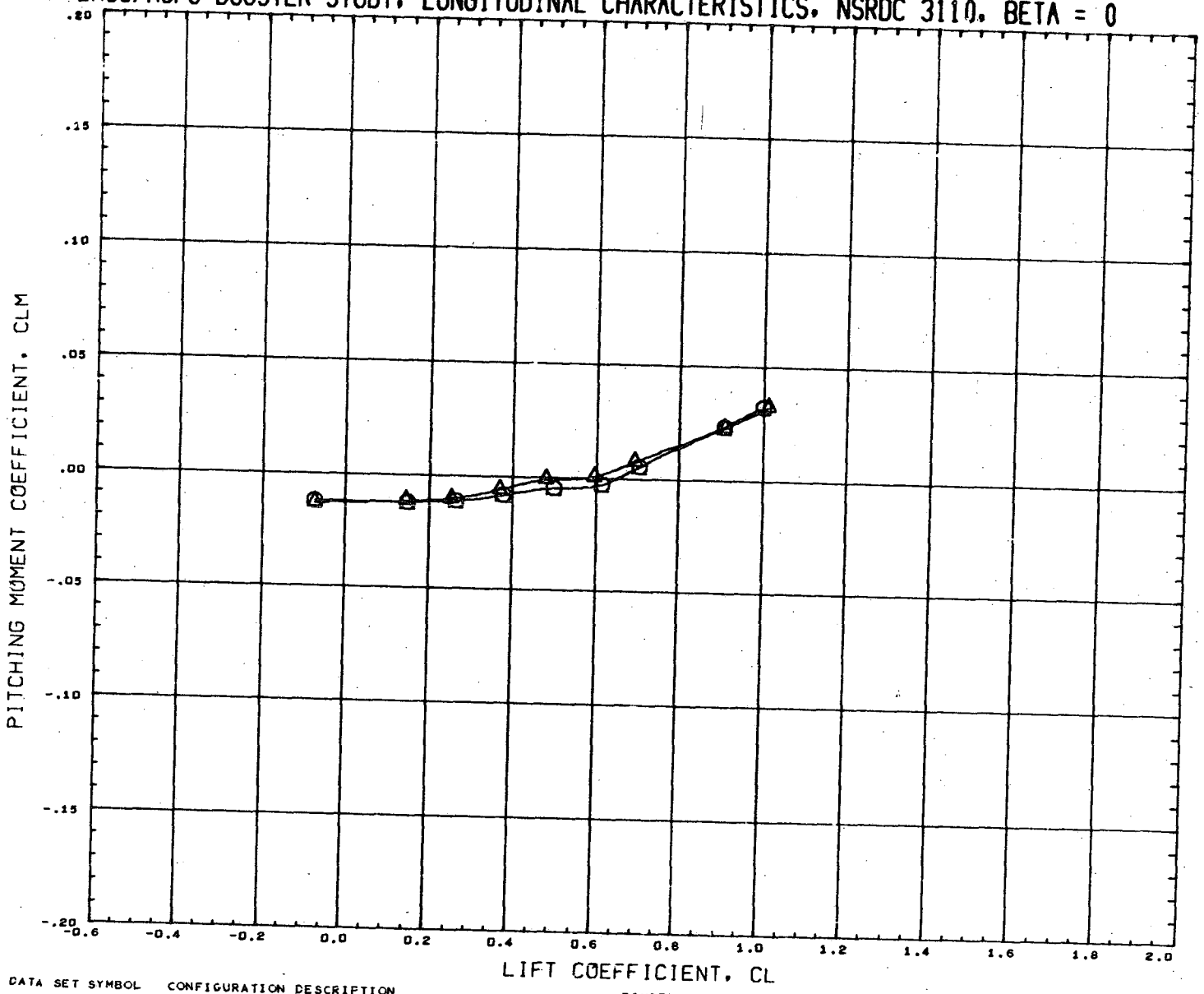



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|---|
| (RN2285) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 7.660 | 3.000 | 1.000 | 3.000 |
| (RN2533) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 3.000 | 1.000 | 3.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

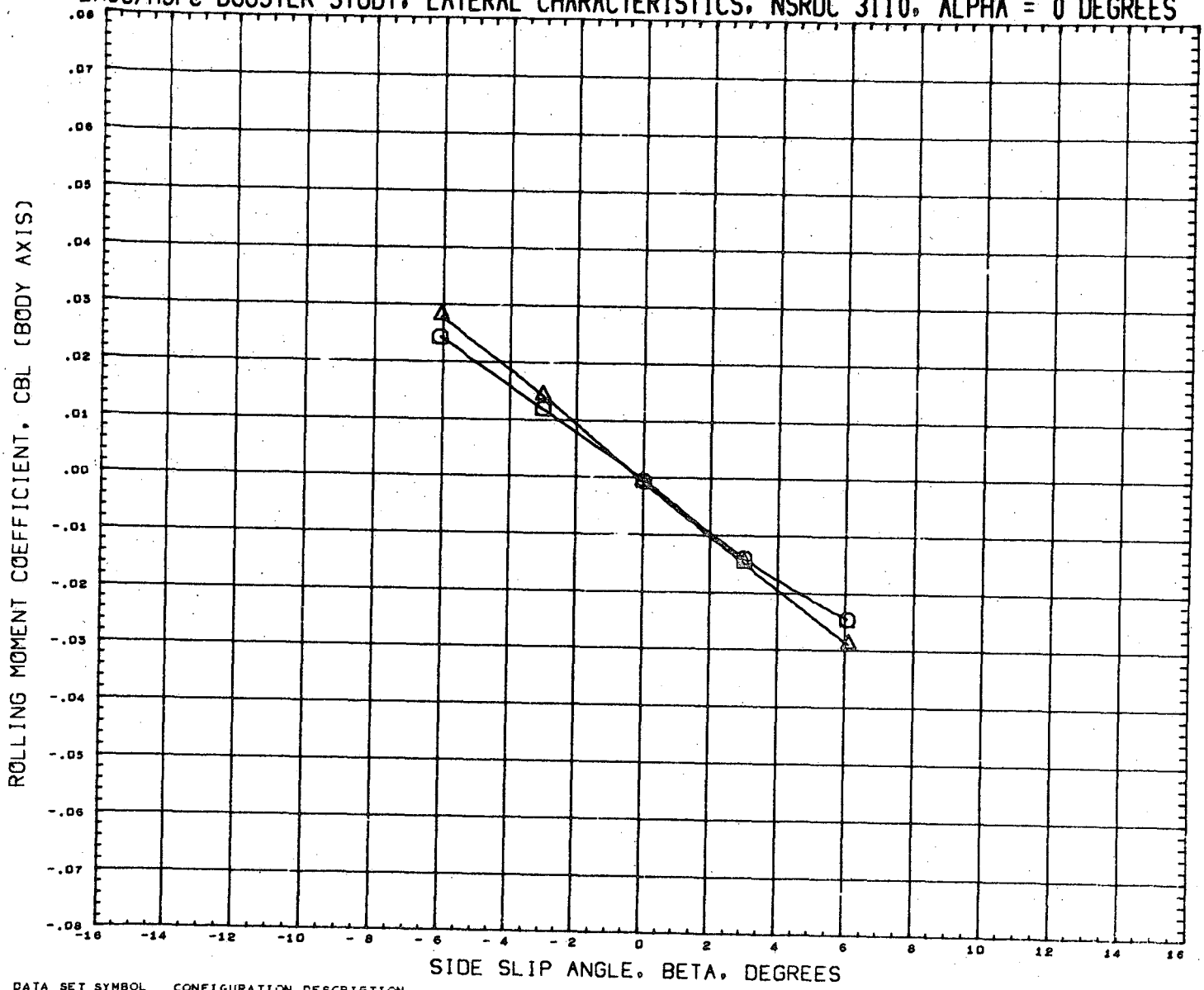



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|
| (RN2285) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 7.660 | 3.000 | 1.000 | 3.000 |
| (RN2533) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 3.000 | 1.000 | 3.000 |

MACH 0.380

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY. LATERAL CHARACTERISTICS. NSRDC 3110. ALPHA = 0 DEGREES

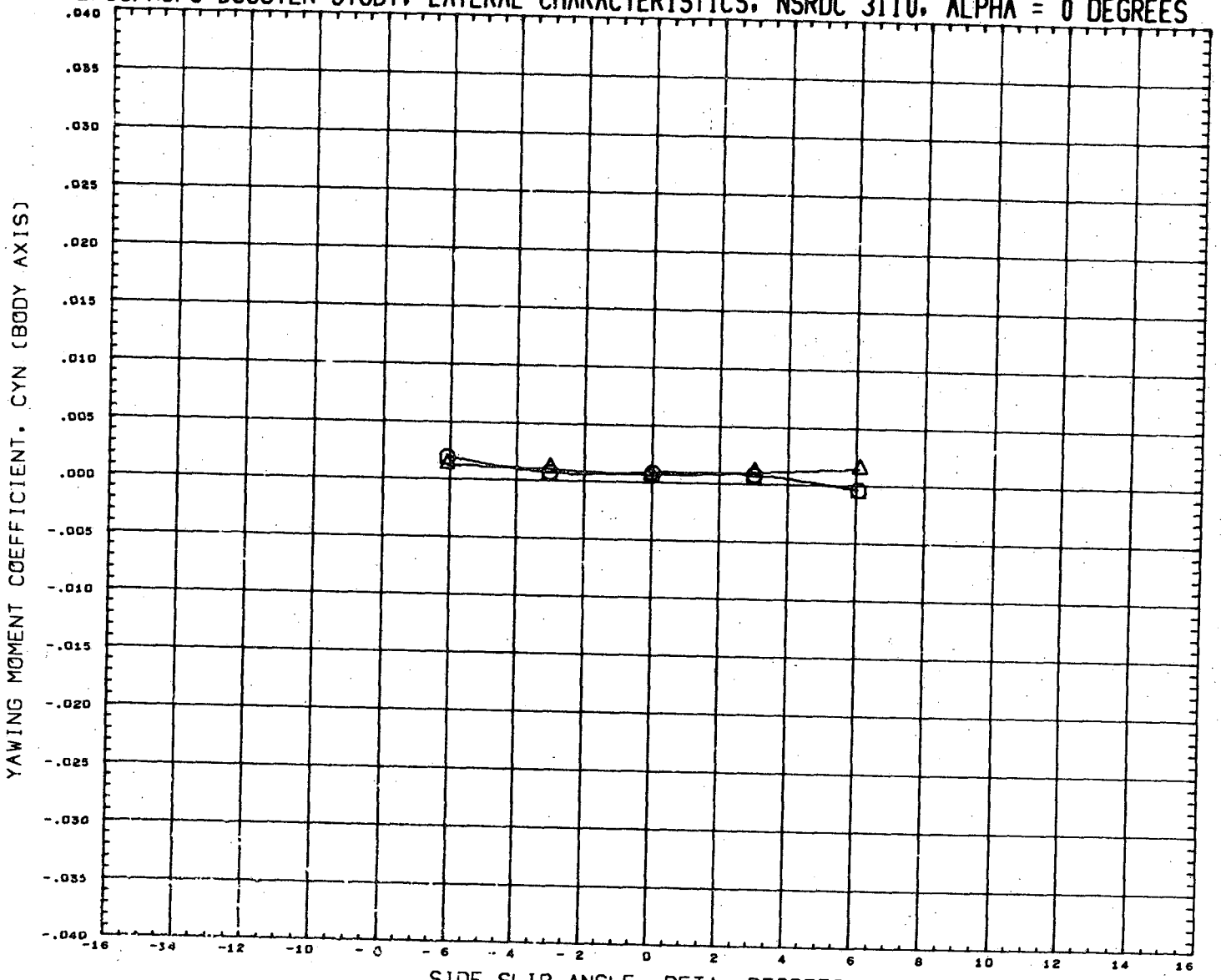



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|
| (RN2286) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 7.660 | 3.000 | 1.000 | 3.000 |
| (RN2534) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 3.000 | 1.000 | 3.000 |

MACH 0.379

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES



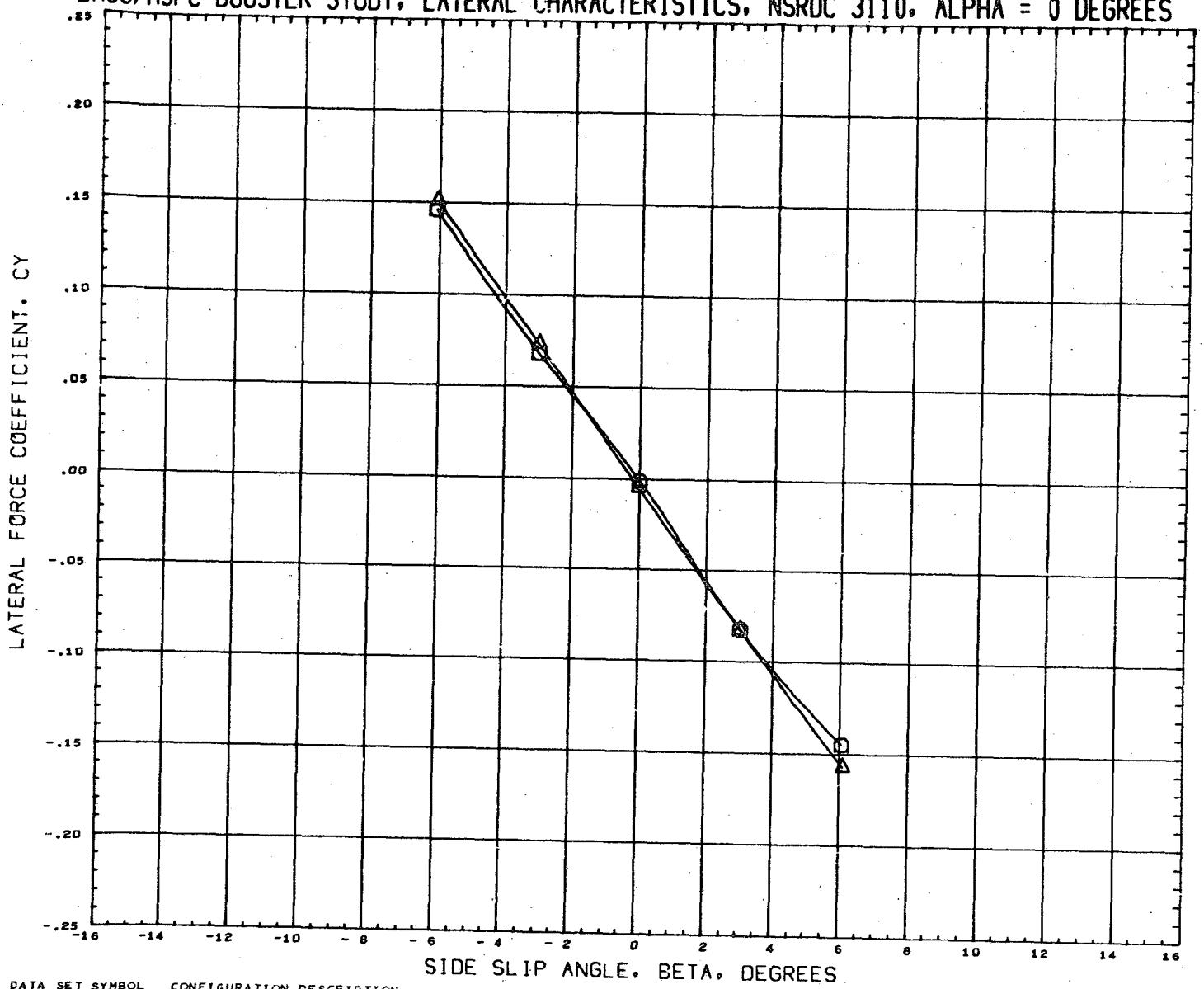

| DATA SET SYMBOL | CONFIGURATION DESCRIPTION |
|---|---|
| (RN2286) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 |
| (RN2534) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 |

| DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|
| 7.660 | 3.000 | 1.000 | 3.000 |
| 15.000 | 3.000 | 1.000 | 3.000 |

MACH 0.379

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

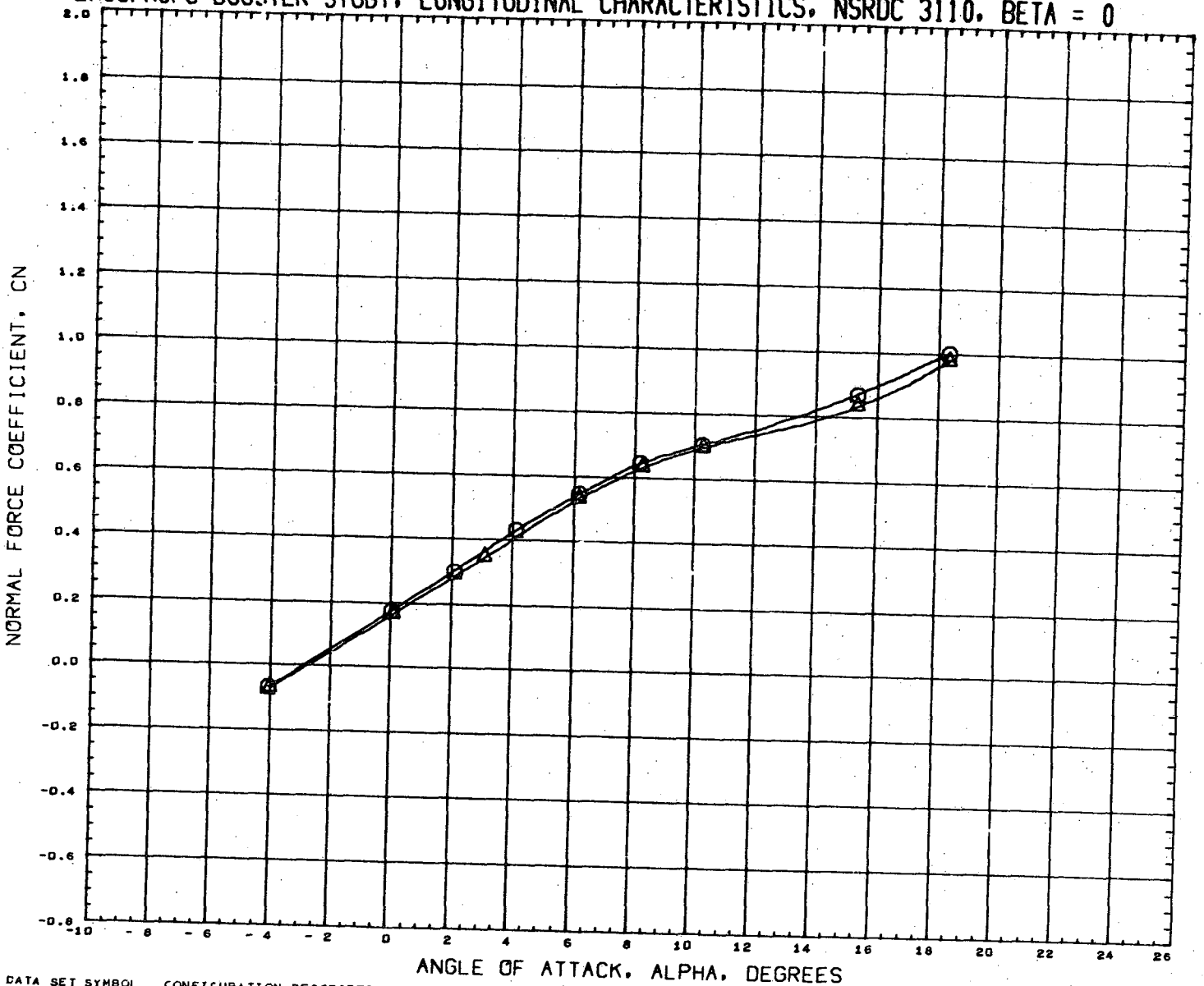



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|---|
| (RN2286) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 7.660 | 3.000 | 1.000 | 3.000 |
| (RN2534) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 3.000 | 1.000 | 3.000 |

MACH 0.379

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

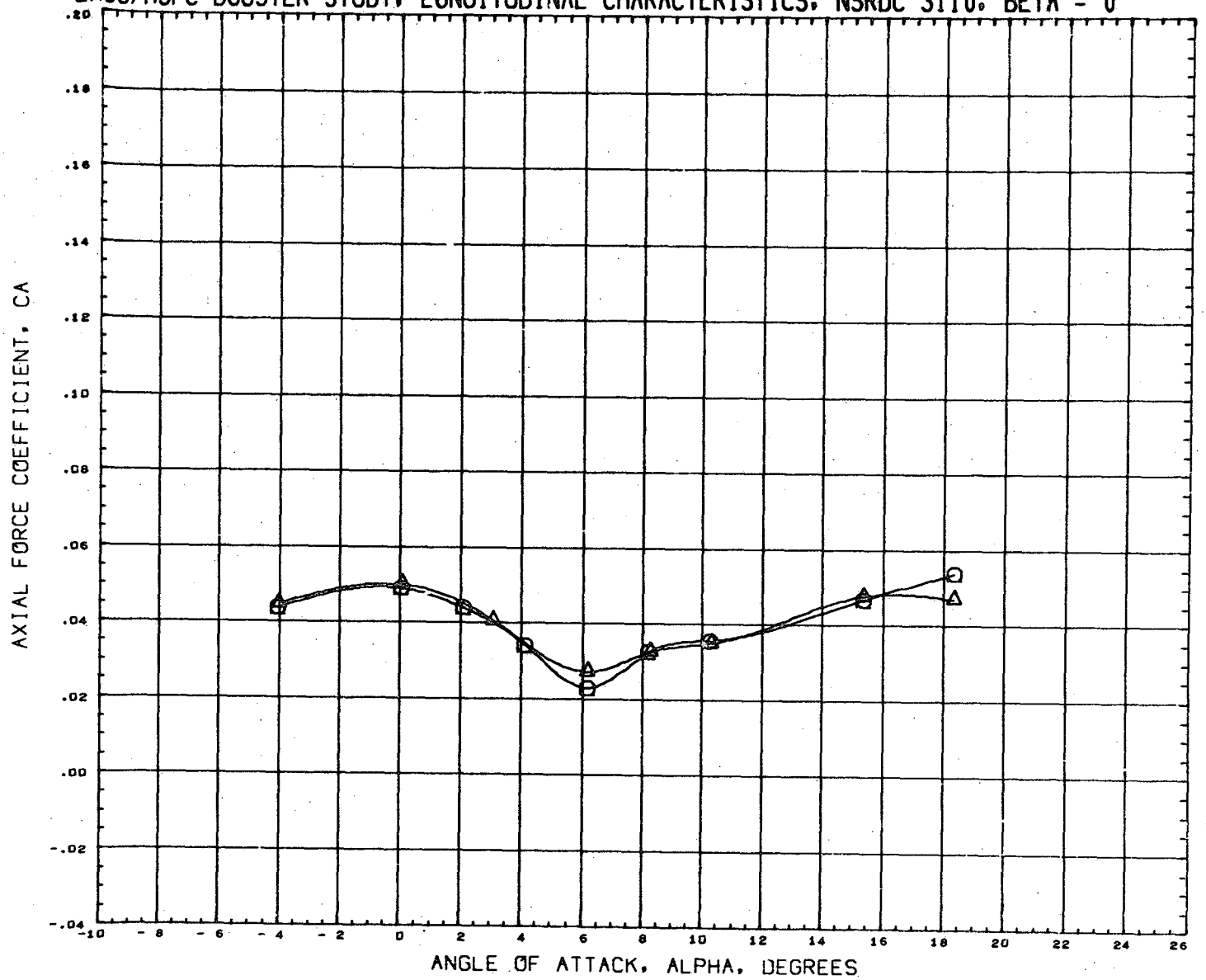



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|
| (RN2293) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 7.660 | 3.000 | 2.000 | 3.000 |
| (RN2537) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 3.000 | 2.000 | 3.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

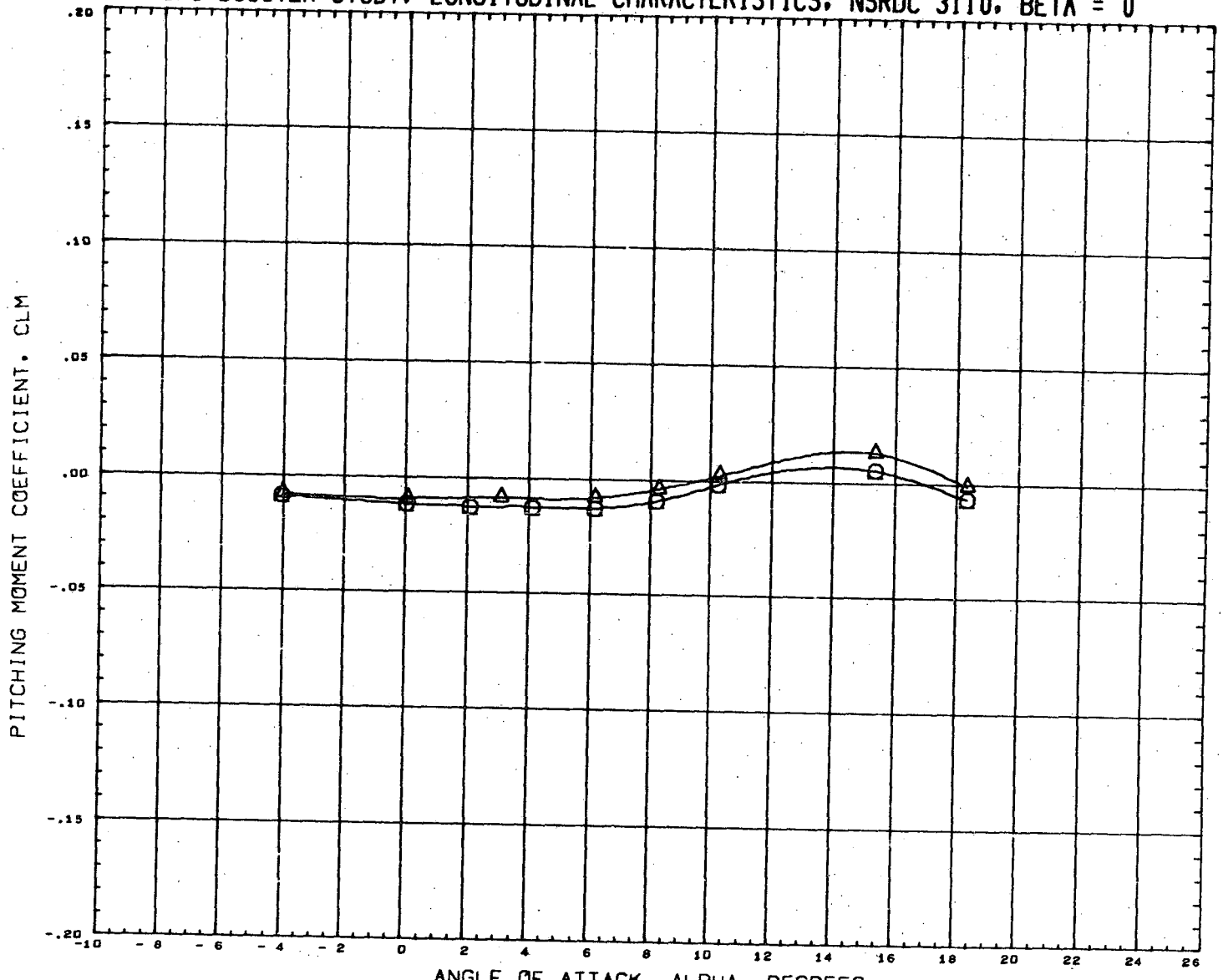



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|
| (RN2293) ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 7.660 | 3.000 | 2.000 | 3.000 |
| (RN2537) △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 3.000 | 2.000 | 3.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0



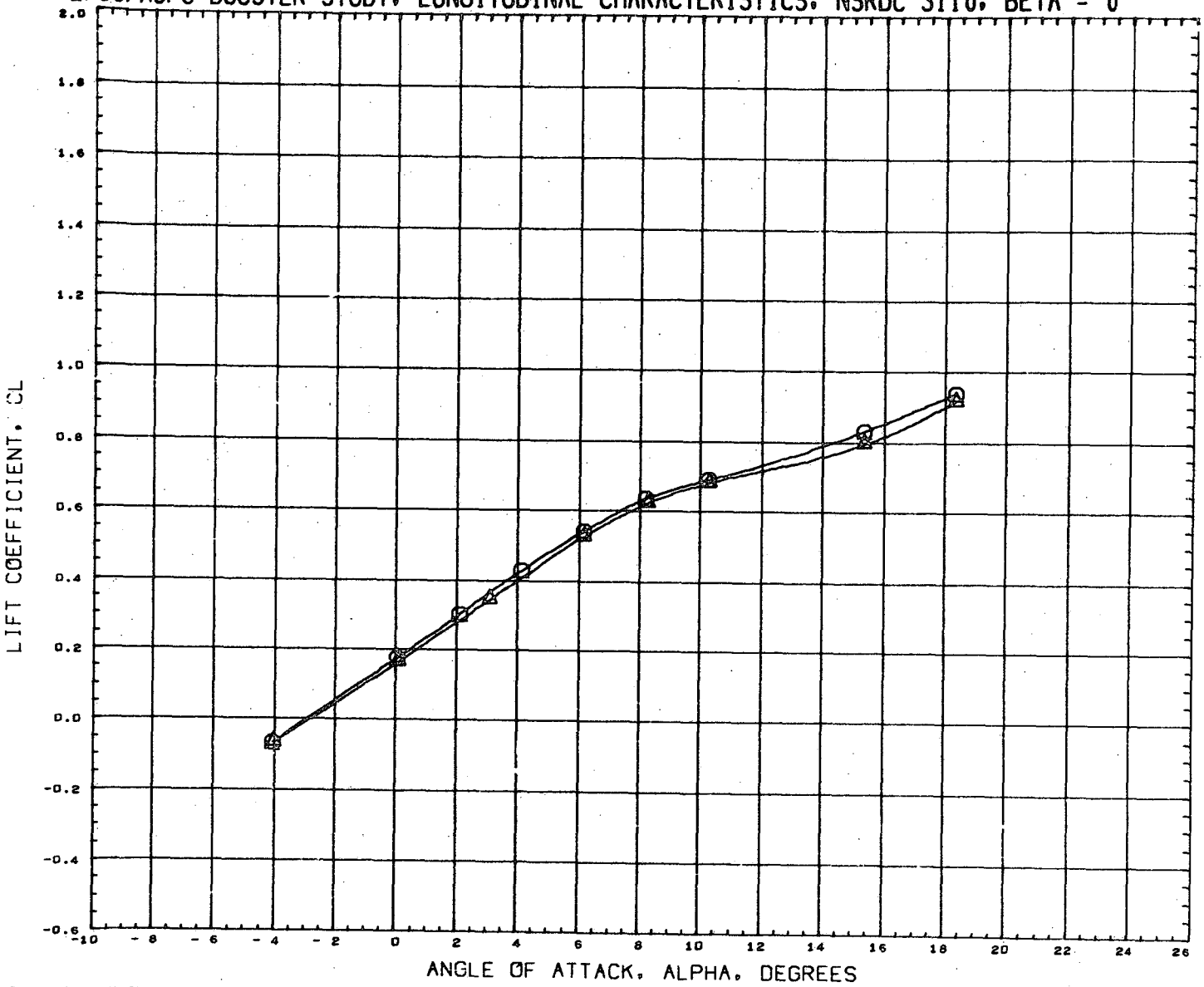

| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION |
|---|---|---|
| (RN2293) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 |
| (RN2537) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 |

| DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|
| 7.660 | 3.000 | 2.000 | 3.000 |
| 15.000 | 3.000 | 2.000 | 3.000 |

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

MACH 0.381

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

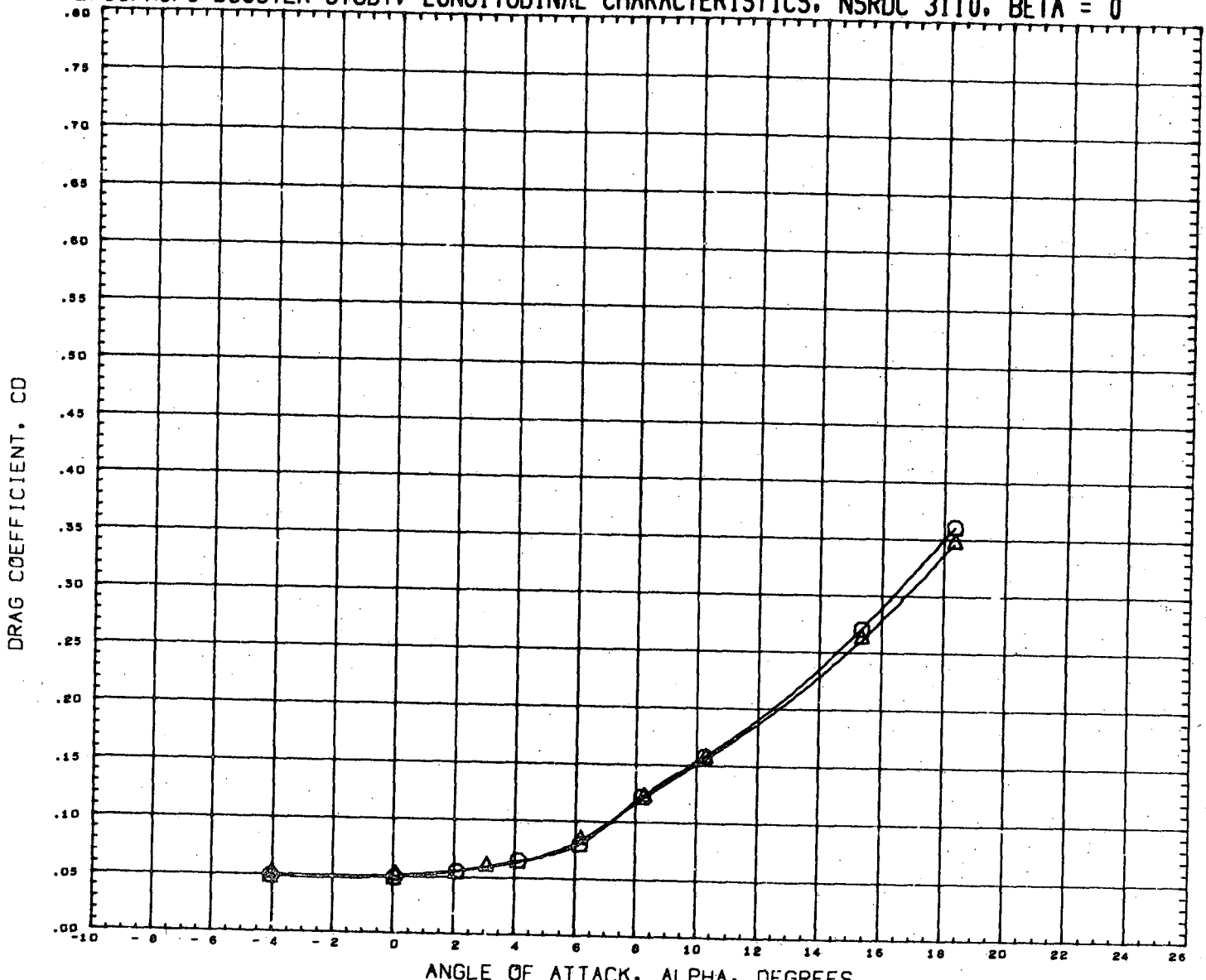



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|---|
| (RN2293) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 7.660 | 3.000 | 2.000 | 3.000 |
| (RN2537) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 3.000 | 2.000 | 3.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

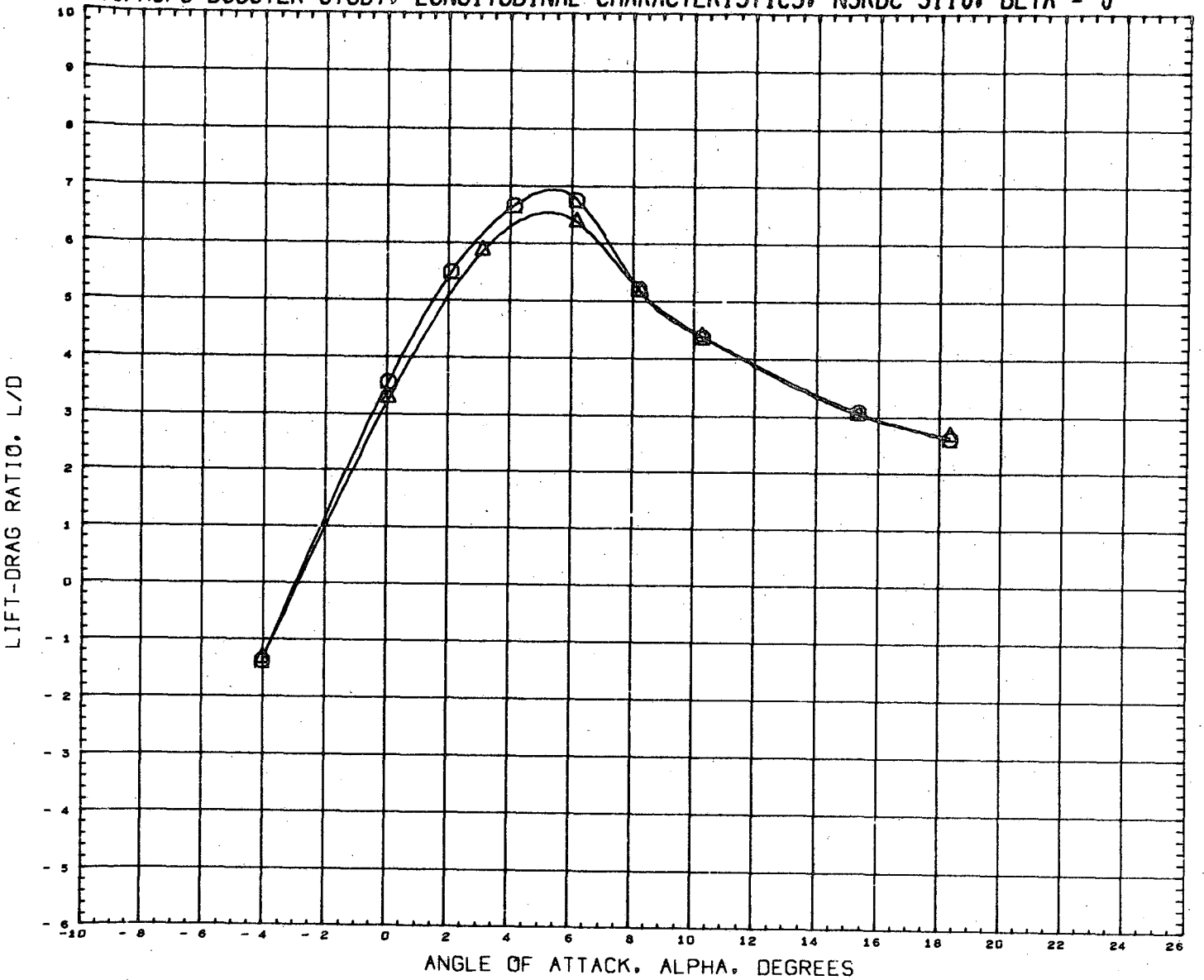



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|
| (RN2293) ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 7.660 | 3.000 | 2.000 | 3.000 |
| (RN2537) △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 3.000 | 2.000 | 3.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

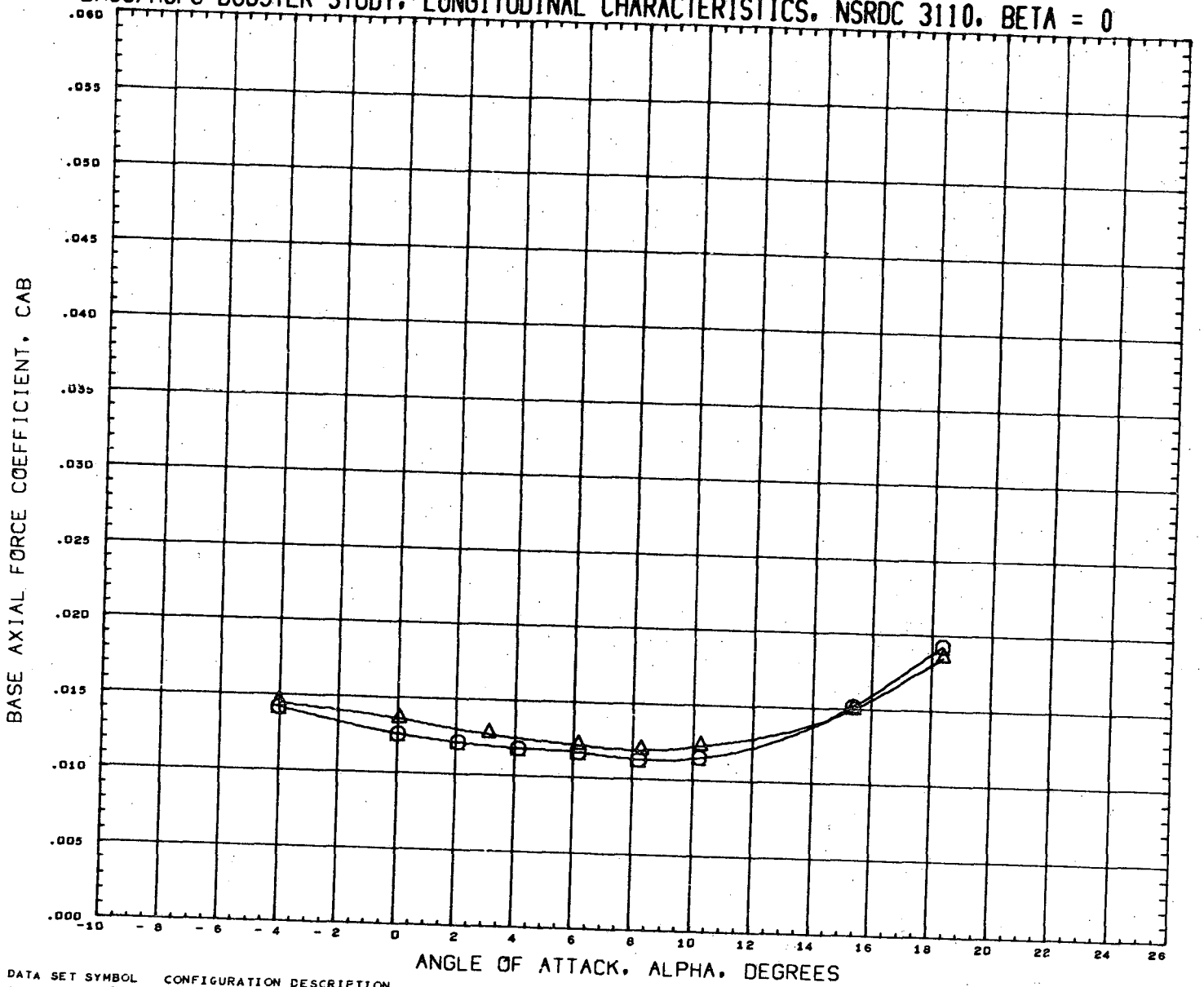



| DATA SET SYMBOL | | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|---|
| (RN2293) | ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 7.660 | 3.000 | 2.000 | 3.000 |
| (RN2537) | △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 3.000 | 2.000 | 3.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

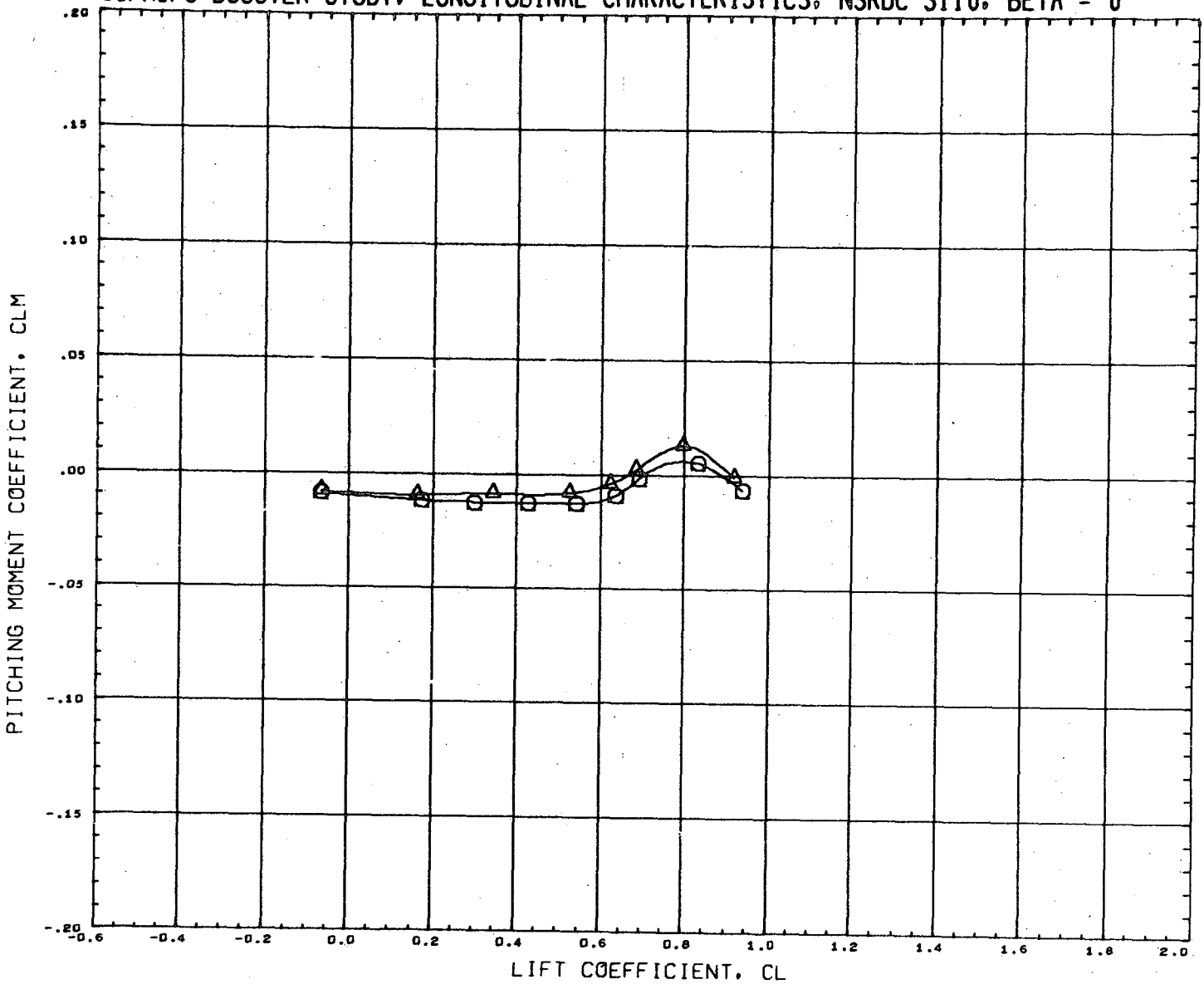



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|
| (RN2293) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 7.660 | 3.000 | 2.000 | 3.000 |
| (RN2537) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 3.000 | 2.000 | 3.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LONGITUDINAL CHARACTERISTICS, NSRDC 3110, BETA = 0

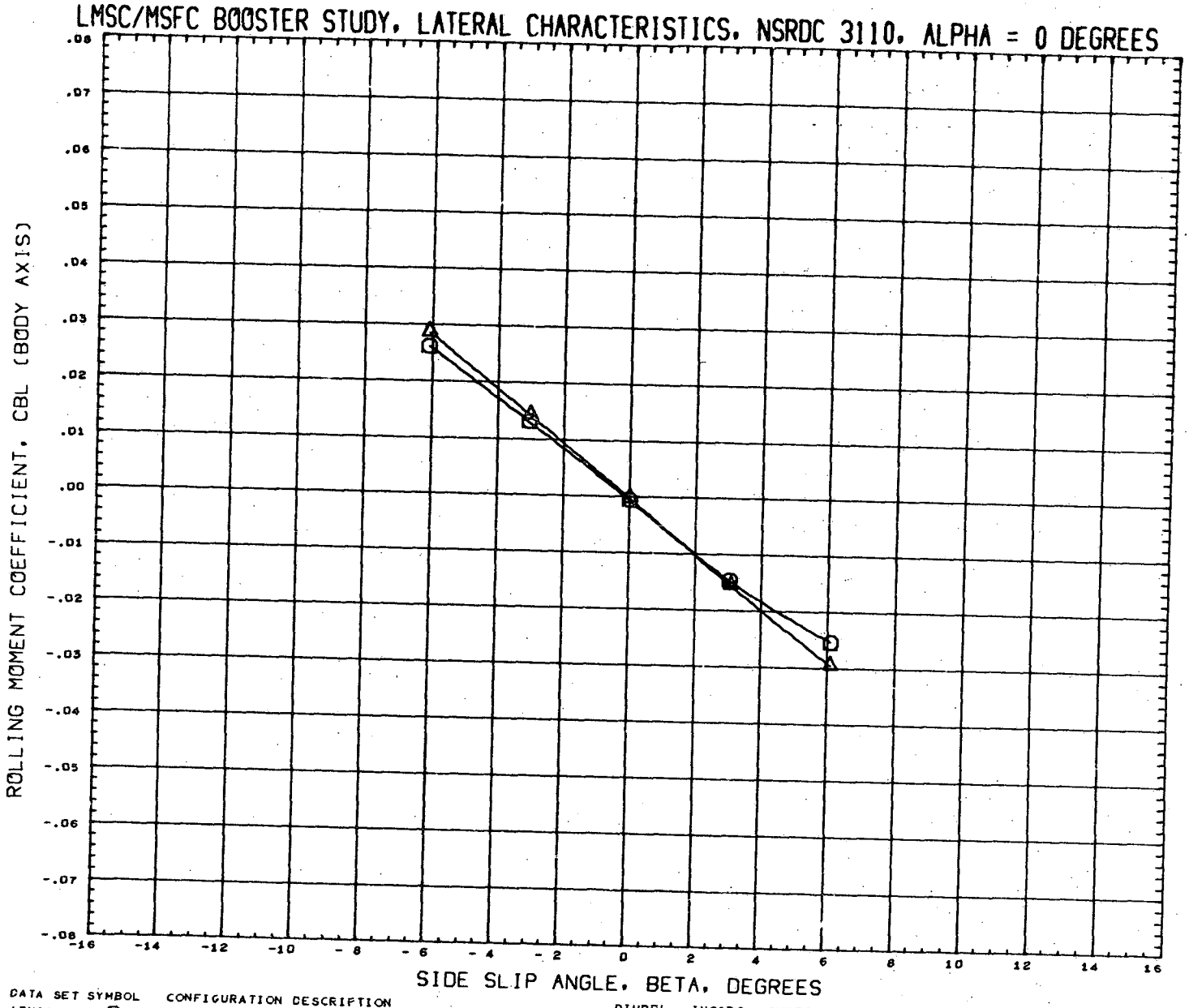



| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|---|
| (RN2293) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 7.660 | 3.000 | 2.000 | 3.000 |
| (RN2537) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 3.000 | 2.000 | 3.000 |

MACH 0.381

REFERENCE INFORMATION

| | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

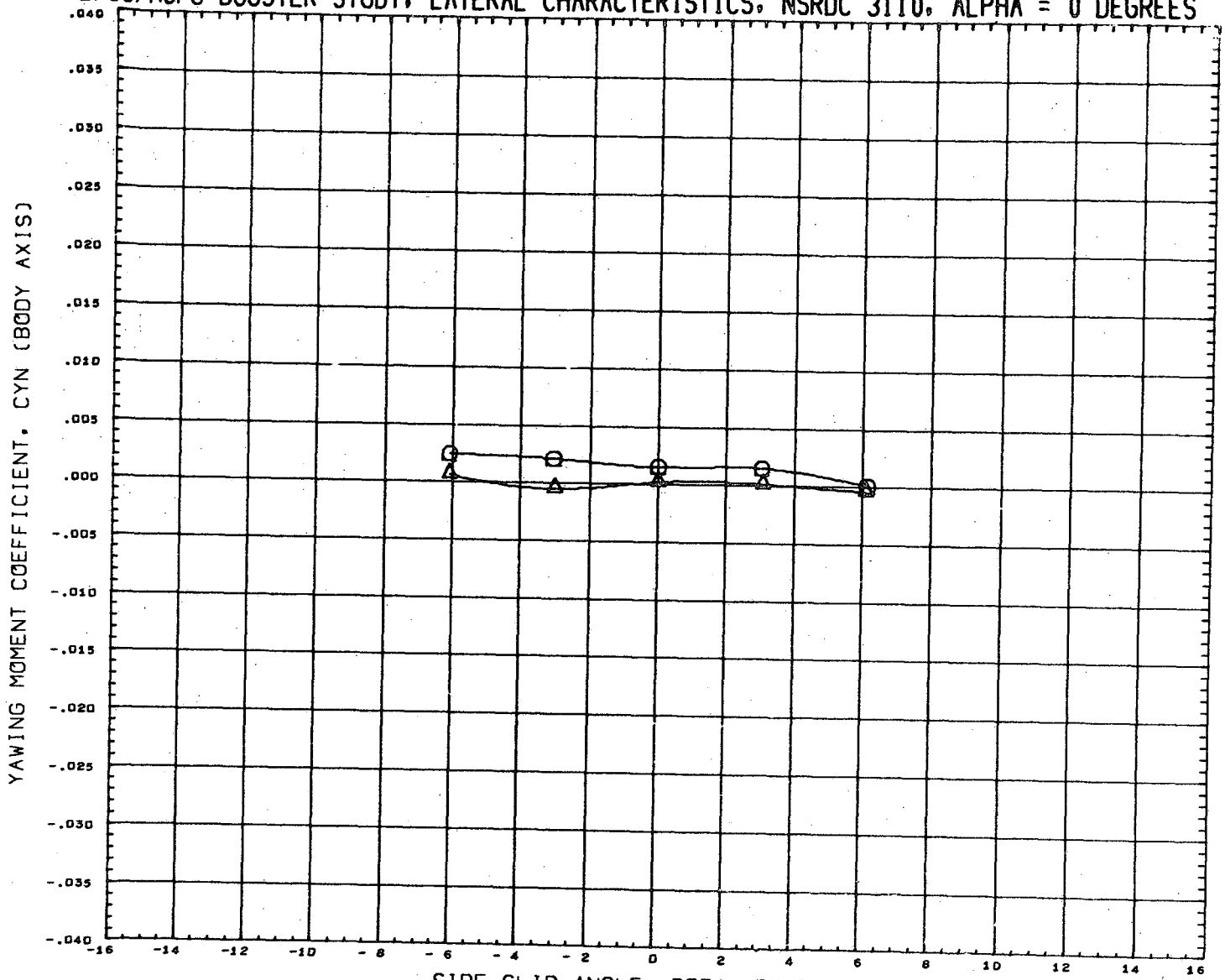



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|
| (RN2294) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 7.660 | 3.000 | 2.000 | 3.000 |
| (RN2538) | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 3.000 | 2.000 | 3.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES

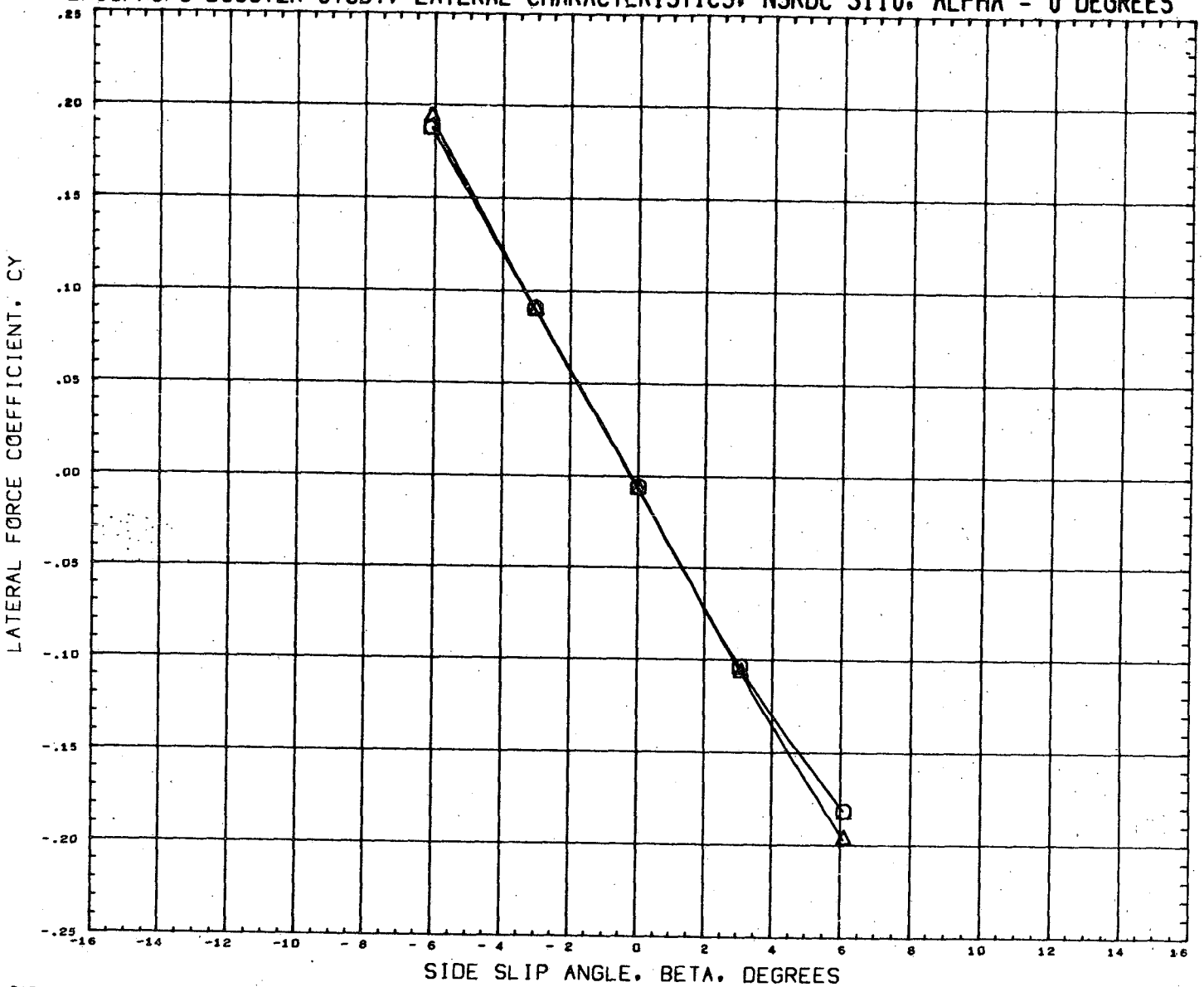



| DATA SET SYMBOL | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|
| (RN2294) ○ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 7.660 | 3.000 | 2.000 | 3.000 |
| (RN2536) △ | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 3.000 | 2.000 | 3.000 |

MACH 0.381

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

# LMSC/MSFC BOOSTER STUDY, LATERAL CHARACTERISTICS, NSRDC 3110, ALPHA = 0 DEGREES




| DATA SET | SYMBOL | CONFIGURATION DESCRIPTION | DIHDRL | INCIDC | CNDPOS | INCIDW |
|---|---|---|---|---|---|---|
| (RN2294) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 7.660 | 3.000 | 2.000 | 3.000 |
| (RN2538) | | NSRDC-3110,MSFC/LMSC BOOSTER B1C2F1W2D1 | 15.000 | 3.000 | 2.000 | 3.000 |

| REFERENCE INFORMATION | | |
|---|---|---|
| SREF | 1.3550 | SQ.FT. |
| LREF | 41.4360 | INCHES |
| BREF | 41.4360 | INCHES |
| XMRP | 31.1400 | INCHES |
| YMRP | 0.0000 | INCHES |
| ZMRP | 0.2250 | INCHES |
| SCALE | 1.5000 | PERCNT |

MACH 0.381